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Tennessee Dropout Policy Scan

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Introduction to the Dropout Crisis

The high dropout and low graduation rates of the United States public education system present a complex quandary for educators and decision makers. The current situation has been widely noted as an educational crisis. Except in situations involving major life events, the decision made by a student to drop out of high school is usually the culmination of long-term disengagement from the educational system, which begins for some students in elementary school (Alexander, Entwisle, & Kabbani, 2001; Griffin, 2002; Disla, 2004; Tyler & Lofstrom, 2009).

There is no single, perfect, easy, or immediate solution to every component of the dropout crisis. A unique mix of personal, social, cultural, academic, and behavioral factors drives each student's academic experience and decision to stay in or drop out of school. While the development of an early warning system made up of key academic indicators can assist schools and districts in predicting students in need of interventions, dropout prevention programs that are effective with one group of students—characterized by a set of dominant characteristics or risk factors—may not transfer successfully to another group of students possessing similar risk factors. Due to the complexity of the dropout problem, effective solutions and reform models must be multi-faceted.

Research Purpose and Goals

The purpose of the Tennessee Dropout Policy Scan has been to highlight some of the key factors in the dropout crisis, identify barriers at the national, district, and state levels, and review policies that can either bolster or hinder a student's journey to graduation. This report explores the dropout problem using three sources of data:

- Current literature on dropout and graduation rates, risk factors and early warning indicators, factors supporting academic success, and interventions and their effectiveness;
- Survey ratings and feedback concerning the impact of initiatives and policies discussed in the literature and defined in Tennessee state policies, collected from two participant pools:
    - Experts, comprised of participants in the 2009 Dropout Prevention Summit (held on March 18, 2009, in Nashville, TN); and
    - Educators, school administrators, and support service providers across all 136 Tennessee school districts.[1]
- Specific policies examined at the federal, state, and local levels as they relate to the most prominent components of dropout prevention and intervention success in Tennessee, as highlighted in the survey results.
    - Twenty-three school districts in Tennessee were selected for a preliminary scan of their local school board policy manuals and student handbooks that were available from school and district websites. [2] These districts were scanned for their delivery and elaboration of policies

[1] Survey respondents rated listings of policies, programs, initiatives, and supports using a scale ranging from 0 to 5, where a rating of 0 indicated "no impact." In the analysis of these ratings, ratings of 1 or 2 were combined and labeled as "low" or "minimal" impact, ratings of 3 was labeled as "moderate" impact, and ratings of 4 or 5 were combined and labeled as "high" impact. The full results are provided in Appendix A.

[2] Included in the scan were ten districts with high promoting power in 2006-2008 (Alliance for Excellent Education, 2010), six recipients of state funding to "support improvement or expansion of dropout prevention services, outreach, or program evaluation"

related to the three key academic behavior indicators identified by Balfanz, Wang, & Byrnes (2010b): attendance, student behavior code and disciplinary consequences, and grade promotion requirements.

- In addition to Tennessee, seven other states were selected for a preliminary scan of their education statutes: Delaware, Georgia, Illinois, Massachusetts, Philadelphia, Kentucky, and Vermont. Selection criteria for the preliminary scan included geographic, population, or promoting power similarities with Tennessee; Race to the Top award funding; and reform strategies frequently appearing in literature.

Included in this report are main findings from the literature as well as a summary of survey results, which generally validated the findings from the literature review. Thus, findings from other studies in other states are also relevant in Tennessee. Findings are organized according to the major environments in which stakeholders in education are present and have an impact: the child and his or her family, the community, the school, the school district, and the state. Conclusions and recommendations are provided at the end of this report, and these are organized similarly by environment. These recommendations are offered as part of an overall mission, strategy, and guide for establishing new drop-out/graduation policies or procedures.

(Tenn. Code, 49-1-520(a)), and the seven districts identified by the state as having the most severe dropout and grade retention problems (Balfanz et al., 2010b).

Present Outcomes of Education

In 2004, only 5% of American high school seniors expected their formal education to end with a high school diploma; 87% expected to attend college, and 33% anticipated graduate or professional school enrollment (Balfanz, 2009). Notwithstanding these intentions, nearly one-third of high school seniors do not graduate with their class, and 1.2 million high school students drop out every year (Balfanz, Fox, Bridgeland, & McNaught, 2009; Balfanz, 2009). One-half of high school graduates receive a diploma and leave school unprepared to succeed in college, careers, and life (Balfanz et al., 2009).

Dropping out of high school has negative consequences that affect the individual socially and economically (Rumberger, 1987). High school dropouts are more likely to be unemployed, earn less when employed, be incarcerated, have health issues, and rely on public assistance (Seastrom, Hoffman, Chapman, & Stillwell, 2007; Patterson, Hale, & Stessman, 2007). Balfanz et al. (2009) estimate that one-third of adults between the ages of 18 to 24 who have dropped out of school are not in the work force or in school; they are simply idle. The idleness rate for high school dropouts in this same age group from families with incomes below poverty level is 40% compared to 8% for 18-24 year-olds who completed high school (Balfanz et al., 2009).

Table 1 compares the economic returns of a high school diploma to those for adults who did not complete high school (Swanson, 2009). The economic impact of obtaining a high school diploma is great: college graduates on average earn $1 million more over a lifetime than high school dropouts. If dropout rates remain the same for the next ten years, the nation will lose an estimated $3 trillion in lost tax revenues (Balfanz et al., 2009). High school dropouts cannot compete in an increasingly demanding job market and so are, thus, trapped in a cycle of poverty and unemployment and chronically use public assistance programs.

Table 1. Economic returns of education: Average median annual income, poverty rate, and steady employment rate for the U.S. and the two largest metropolitan cities in Tennessee

	U.S.	Memphis, TN	Nashville, TN
Average median annual income			
No high school diploma	$13,218	$11,185	$14,235
High school diploma	$23,386	$20,336	$25,420
Bachelor's degree	$44,739	$43,722	$45,450
Poverty rate			
No high school diploma	26.0%	34.1%	22.2%
High school diploma	12.2%	19.5%	10.3%
Bachelor's degree	3.8%	3.4%	3.3%
Steady employment rate			
No high school diploma	36.9%	33.7%	37.1%
High school diploma	51.5%	50.3%	56.2%
Bachelor's degree	60.3%	64.1%	66.5%

Balfanz, Letgers, and Jordan (2004) estimated that, in 2002, there were about 2,000 high schools nationwide where graduation is not the norm. These "dropout factories" were so termed because they account for about half of all high school dropouts each year. On November 30, 2010, Balfanz and his colleagues released an updated report revealing that, in 2008, this number had been reduced by 13%, dropping from 2,007 to 1,746 high schools with graduation rates below 60% (Balfanz, Bridgeland, Moore,

& Fox, 2010a). In addition, graduation rates were found to have increased across 29 states, from 2002 to 2008, and it was found that Tennessee and New York were leading the nation, with increases of 15% and 10% from 2002 to 2008, respectively (Balfanz et al., 2010a).

The National Center for Education Statistics (NCES) defines the freshman graduation rate as the proportion of students who graduate from their high school on time; in other words, on-time graduates are those who received a diploma four years after beginning their freshman year (Chapman, Laird, & Kewal-Ramani, 2010). Table 2 presents the average freshman graduation rate for public secondary schools in Tennessee and across the United States, from 2000-2001 to 2006-2007 (Cataldi, Laird, & Kewal-Ramani, 2009; NCES, 2009a; Aud et al., 2010; Stillwell, 2010).

Table 2. U.S. and Tennessee averaged freshman graduation rates of public high school students: School years 2000-2001 to 2007-2008

Academic reporting year	U.S.	Tennessee
2000-2001	71.7%	59.0%
2001-2002	72.6%	59.6%
2002-2003	73.9%	63.4%
2003-2004	75.0%	66.1%
2004-2005	74.7%	68.5%
2005-2006	73.2%	70.6%
2006-2007	73.9%	72.6%
2007-2008	74.9%	74.9%

Table 2 shows that the overall rate of freshmen graduating on time improved both nationally and in Tennessee over the eight-year span of data available for analysis; however, if every child in Tennessee is to be prepared by the public school system to succeed in postsecondary education or the work force, there is a substantial need to look beyond the averages. For example, while the Tennessee graduation rate in 2008 was reported to be 82.2% for students without disabilities, it was reported to be 59.3% for students with disabilities (Tennessee Department of Education [TDOE], 2009). Additionally, disproportionate graduation rates have been found between urban and suburban school districts within large metropolitan areas. Memphis and Nashville are among the nation's 50 largest cities (Swanson, 2009). As shown in Table 3, graduation rates of urban school districts lag behind their neighboring suburban school districts, both nationally and within these large cities. Of the 41 states included in the analyses, Nashville's urban-suburban graduation gap was ranked fifth largest, and the Memphis gap was ranked 22nd largest (Swanson, 2009).

Table 3. Urban and suburban graduation rates and the urban-suburban graduation gap in two major cities in Tennessee, compared with national averages: 2004-2005

Metropolitan area	Urban districts	Suburban districts	Urban-suburban graduation gap
Memphis, TN	51.2%	68.7%	17.5%
Nashville, TN	45.2%	78.4%	33.3%
National average	60.9%	75.3%	14.4%

Progress and Measurement

Balfanz et al. (2009) inform us that in the past 25-30 years, little progress has been made in graduation rates and preparedness for college or career despite an increase in knowledge and resources to assist schools. Part of the difficulty lies in the methods used to determine graduation rate. These measures vary from state to state and debate exists surrounding the accuracy and consistency of these figures (Balfanz, 2009; Tyler & Lofstrom, 2009). Table 4 provides working definitions for the three types of dropout referred to in literature: event, status, and cohort.

Table 4. Three ways of defining dropout statistics: Adaptation of Lehr, Johnson, Bremer, Cosio, & Thompson (2004)

Type of Dropout Statistic	Definition	Example	Relative Value
Event Rate: (may be referred to as the annual rate or incidence rate)	Measures the proportion of students who drop out in a single year without completing high school.	Three and one-half out of every 100 young adults (ages 15-24 in grades 10-12) enrolled in high school in October 2006 left school before October 2007 without successfully completing a high school program (Chapman et al., 2010).	Typically yields the smallest rate.
Status Rate: (may be referred to as the prevalence rate)	Measures the proportion of students who have not completed high school and are not enrolled at one point in time, regardless of when they dropped out.	In October 2007, approximately 3.7 million young adults were not enrolled in a high school program and had not yet completed high school. Status dropouts accounted for 8.7% of youth ages 16-24 in the U.S. in 2007 (Chapman et al., 2010).	Yields a rate that typically falls between event and cohort rates.
Cohort Rate: (may be referred to as the longitudinal rate)	Measures what happens to a single group (cohort) of students over a period of time.	The percentage of ninth graders in Tennessee who were reported as dropouts four years later in 2007 was 9.6% (TDOE, 2009).	Typically yields the largest rate of dropout.

Researchers call for the need for national standards in data reporting so that student data can be generalized and compared (Balfanz, 2009; Tyler & Lofstrom, 2009). Standardized definitions and methods of reporting graduation rates, dropout rates, and student longitudinal data are essential when addressing the dropout situation. In 2005, the Graduation Counts Compact was signed by the National Governors Association (NGA), thus committing all 50 states to a common method for calculating high school graduation rates across the U.S. (Jackson, 2007). The NGA Grad Rate assigns each student to his or her cohort of fellow ninth graders, adding three years to determine the expected graduation year for general education students and adding four years to estimate the expected graduation year for students eligible to take five years to graduate, namely students in special education and students learning English as a Second Language (ELL). The NGA Grad Rate divides the number of regular on-time graduates assigned to the current cohort by the sum of the original members of the cohort in ninth grade plus any change due to transfers in minus transfers out.

Difficulties remain in comparing state-reported graduation statistics with dropout rates reported in literature, which more frequently cite event rates as opposed to cohort rates. As Table 4 explains, because event rates are calculated across all cohorts within a given school (i.e., all students in ninth, tenth, eleventh, and twelfth grade who dropped out in a given year), they are typically small, whereas cohort rates are often larger because they are confined to the specific group of student being examined (i.e., the cohort of students who began ninth grade in 2003-2004 and graduated in 2008-2009).

To illustrate, the 2008 national event dropout rate for all United States high school students as reported by the National Center for Education Statistics was 4.1% (Chapman et al., 2010). This represents 613,379 high school students who dropped out during the 2007-2008 academic year (Stillwell, 2010). The 2008 event dropout rate according to the Tennessee Department of Education was 4.3%, which is well within the state goal of 5.0% (TDOE, 2009). This represents 11,200 high school students who dropped out during the 2007-2008 academic calendar year (Stillwell, 2010). In contrast, the 2008 cohort dropout rate reported by the Tennessee Department of Education was 10.1% (TDOE, 2009). This represents all ninth graders in Tennessee who were reported as dropouts four years later in 2008. Event rates and cohort rates thus measure two different pools of students, and while event rates are smaller, cohort rates are more precise.

In addition, the disproportionate dropout rates among African American and Hispanic urban students, American Indian/Native Alaskan students, and students with disabilities indicate that the social goal of educational equity for all students is not being met within the current national educational climate (Disla, 2004; Gwynne, Lesnick, Hart, & Allensworth, 2009; NCES, 2009a; NCES, 2009b). Balfanz et al. (2004) estimated that nearly 40% of our nation's African American and Hispanic high school students attend a school where the senior class is 60% the size of the freshman class four years before. Table 5 compares the breakdown of event dropout rates by ethnicity for the 2007-2008 academic year in the U.S. and in Tennessee.

Table 5. U.S. and Tennessee event dropout rates by ethnicity: 2007-2008 academic calendar year

	U.S. high schools	Tennessee high schools
Caucasian	3.0%	2.2%
African American	6.8%	5.7%
Hispanic	6.5%	5.4%
Asian/Pacific Islander	2.6%	2.3%
Indian/Natural Alaskan	7.6%	3.8%
TOTAL	**4.4% (613,379 total dropouts)**	**3.0% (11,200 total dropouts)**

It is important to note that real statistics can be skewed or altered by how students are categorized (Disla, 2004). Students transfer within districts, transfer to schools in other districts, pursue and obtain General Educational Development (GED) certificates, leave the United States, get expelled, go to reform schools, go to youth homes, get admitted to mental health facilities, and drop out. In addition, the inclusion or exclusion of prisoners, military personnel, immigrants, and GED holders in high school graduation rate calculations also constitutes sources of bias and inaccuracies in measuring true graduation rates for individual schools (Tyler & Lofstrom, 2009). Tennessee educators, school administrators, and support personnel responding to the Dropout Prevention District Survey were asked about potential barriers to staying in school and graduating. Almost one-fifth of comments pertaining to accountability were regarding misunderstandings about how to calculate dropout rates and the dilemmas encountered when considering student categories to include in dropout calculations. Several particularly problematic student categories were mentioned by survey participants, including students who transfer to other schools, become ill or severely injured, or pass away. Respondents noted that they had no control over these situations. Because all of these categories can affect how accurately dropout numbers are reported by individual schools and districts, it is important to follow specific protocol when reporting student data (Disla, 2004).

The GED was discussed in over three-quarters of comments regarding difficulties in measuring graduation and dropout rates. About 57% of Tennessee educators, school administrators, and support

personnel indicated that promoting the GED as an alternative to completing high school diploma requirements was a barrier to students' staying in school and graduating. Several open-ended comments revealed that a common perception of the GED among students may be that it is an "easy way out" of completing the full regimen of graduation requirements. In some states, a GED Option program provides an alternative path to gain high school equivalency by allowing students to remain enrolled in high school while they pursue their GED (Tyler & Lofstrom, 2009). The GED is thus being promoted in these states as an alternative to completing high school, but in doing so the original intent of the program may have become lost. The GED program was originally developed in the late 1940s as a way to certify returning World War II veterans as ready for college or career; thus, the GED certificate test was designed to capture the knowledge and skills equivalent to a high school diploma (Tyler & Lofstrom, 2009). Contrary to its original intent, fewer students who complete their GED receive postsecondary education than their high school graduate counterparts, and those GED certificate holders who do go on to college do not do as well in as those of their classmates holding a high school diploma. In addition, GED holders do not have the same earning potential as diploma holders (Patterson et al., 2007; Balfanz, 2009; Tyler & Lofstrom, 2009). Balfanz (2009) points out that college and career success potentially "depends on more than the acquisition in high school of academic knowledge and skills" (p. 27) and students considering taking their GED may benefit from combining academic and career experiences while in high school.

Educational Reform: Reasserting the Purpose of Education

Educational reform efforts attempt to identify, address, and resolve barriers that derail students on their paths to academic success; however, Balfanz (2009) cautions that while new reform models have improved student attendance, course performance, grade level promotion, and graduation rates in some challenging environments, several significant problems remain. For example, zero tolerance disciplinary policies have led to an increase in high school grade retention as well as an increase in suspensions, expulsions, and student involvement with juvenile court systems, with no indication of improvement in academic achievement. Research indicates that is important to increase and sustain comprehensive reform that includes personalization and student outreach, high standards in and alignment of high school coursework with the cognitive level required by college and the workplace, academic and social support systems, professional development and teacher support, and strong partnerships between high school, colleges, and employers (Balfanz, 2009; Balfanz & Letgers, 2004; Neild, Balfanz, & Herzog, 2007). Researchers point out that no single reform strategy or set of reforms will work for all high schools in all locations and that secondary school reform must include middle schools (Balfanz & Letgers, 2004).

Reauthorization of ESEA: No Child Left Behind (NCLB) Act of 2001

The current reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965 is the No Child Left Behind (NCLB) Act of 2001. Lagana-Riordan and Aguilar (2009) point out that NCLB forces schools to "address the education of traditionally underserved and underachieving students" (p. 136). The intent of NCLB is to emphasize equal access to education for all students, for each state to set high standards and measurable goals to improve individual educational outcomes, and to stress accountability through Adequate Yearly Progress (AYP) measured by student achievement via math and reading proficiency scores (TDOE, 2010b). Assessments are administered by states, districts, and schools in order to determine students' proficiency and achievement. Different standardized assessments are available, chosen, and administered by educators to measure student progress, and their results cannot always be compared.

To illustrate, there has recently been a discrepancy in reported proficiency levels of students in Tennessee. The National Assessment of Education Progress (NAEP) "provides a common yardstick for measuring the progress of students' education across the country" (NCES, 2010a), but while the NAEP reports 26% reading and 23% math proficiency scores for Tennessee's eighth grade students in 2007, the 2007 Tennessee Report Card shows 90% reading and 90% math proficiency scores (NCES, 2009a; NCES, 2009b; TDOE, 2009). In addition, rigorous exit exams are being administered in disproportionate numbers to minority populations and have resulted in lower graduation rates. According to Balfanz (2009), 76% of minority students are administered exit exams, compared with 58% of white students. His analyses show that this difference is largely due to the concentration of exit exams in Western and Southern states which have a higher concentration of minority students. Discrepancies such as these suggest the need for national standards regarding methods, assessments, and definitions in order to effectively measure, compare, and report assessment and statistical data among academic institutions.

Beyond issues of measurement and reporting, Lagana-Riordan and Aguilar (2009) maintain that NCLB focuses on problems versus finding solutions, may exacerbate problems such as grade retention and dropout rates, does not take community differences or diversity into account, and may be reinforcing negative expectations for some students. Many Tennessee educators, school administrators, and support personnel who responded to the Dropout Prevention District Survey seemed to agree, commenting that not counting recipients of the alternative diploma for exceptional education in the school graduation rate is unfair to the school and that "it is not right to 'punish' the school for working with these students to meet alternative educational goals."

Reauthorization of ESEA: The Blueprint for Reform

With the signing of the American Recovery and Reinvestment Act of 2009 (ARRA) on February 17, 2009, President Obama reasserted education as a national priority, in that it was a primary avenue to both national and local economic well-being. According to the U.S Department of Education, President Obama considers education to be "the great equalizer" (U.S. Department of Education [USDOE], 2010b, p. 11); thus, a major component of both national and individual economic stability is a world-class education (USDOE, 2010b). Dropout prevention and recovery are major themes addressed in discussions of ESEA reauthorization in Washington, D.C. (Tsoi-A-Fatt, R., 2010).

The ARRA was designed with the goal of stimulating a United States economy in recession by supporting job creation and investing in critical sectors (USDOE, 2009a; USDOE, 2009b). Because education is essential to social and career advancement, it stands as the foundation for both national and individual economic health. As U.S. Secretary of Education Arne Duncan stated in his brochure for teachers regarding his plans for educational reform, "Skeptics say we must first solve our country's economic problems, but the president knows that we have to educate ourselves into economic security" (USDOE, 2010b, p. 11). Secretary Duncan outlined his proposals for reauthorizing the Elementary and Secondary Education Act (ESEA) of 1965 in his *Blueprint for Reform*, which calls for action in four major reform areas:

- Adopting internationally benchmarked standards and assessments that prepare students for success in college and the workplace;
- Recruiting, developing, retaining, and rewarding effective teachers and principals, especially where they are needed most;
- Building data systems that measure student success and informing teachers and principals about how they can improve instruction; and
- Turning around our lowest-achieving schools (USDOE, 2009a, p. 2; See Appendix C for details).

Race to the Top

The ARRA provided $4.35 billion for the Race to the Top Fund, the largest-ever federal competitive grant program intended to encourage and reward states that are creating and supporting conditions "that are most likely to lead to improved results for students, long-term gains in school and school system capacity, and increased productivity and effectiveness" (USDOE, 2009a, p. 2). In their Race to the Top applications, states were to document evidence of significant improvement in the following student outcomes as past and future products of their ongoing and planned educational reforms:

- Making substantial gains in student achievement;
- Closing achievement gaps;
- Improving high school graduation rates; and
- Ensuring student preparation for success in college and careers (USDOE, 2009a).

States that have demonstrated success in raising student achievement and have the best plans to accelerate their reforms in the future would serve as models from which best practices would be spread across the United States (USDOE, 2009a). In statements to the press, President Obama asserted that addressing the dropout crisis was critical, citing the statistic that 1.2 million students drop out of school

yearly before their high school graduation (Zeleny, 2010). “In this kind of knowledge economy,” President Obama said, “giving up on your education and dropping out of school means not only giving up on your future, but it’s also giving up on your family’s future and giving up on your country’s future” (Zeleny, 2010).

Tennessee First to the Top: Comprehensive School Reform

While the ARRA officially placed educational reform at the forefront of national policy and practice, the impetus to make college and career readiness a priority in the United States was already in motion in 2005 with a handful of states banding together to form the American Diploma Project (ADP) Network. The Network was launched by Achieve, an independent, bipartisan, non-profit education reform organization based in Washington, D.C. that was created in 1996 by the nation’s governors and corporate leaders to support states in raising academic standards and graduation requirements, improving assessments, and strengthening accountability (Achieve, Inc., 2010). The ADP Network has grown to include governors, state education officials, postsecondary leaders, and business executives representing 35 states and 85% of the U.S. public school student population. The ADP Network seeks to align high school standards, graduation requirements, and assessment and accountability systems with the demands of college and careers (Achieve, Inc., 2010).

Tennessee joined the ADP Network in 2007, thereby gaining a blueprint for making its state standards more exacting and its graduation requirements more in accord with the demands of college and work (TDOE, 2010d). Specifically, Tennessee and partnering states work toward to bring value to the high school diploma by making the following four commitments:

- Align standards and assessments with the knowledge and skills required beyond high school;
- Require all high school students to take challenging courses that actually prepare them for life after high school;
- Build college and work-ready measures into statewide accountability systems; and
- Hold schools accountable for graduating students who are college and/or workforce ready and hold postsecondary schools more accountable for students’ success once enrolled (TDOE, 2010d).

Tennessee’s theory of change puts “teachers at the heart of student achievement” (TDOE, 2010e, p. 6-28). Preparing and monitoring teachers and leaders for success is achieved by hiring and maintaining strong teachers and leaders, by investing in professional development with particular emphasis on the effective use of data, and by evaluating outcomes with a sharper focus on student achievement and growth (TDOE, 2010e). Supporting and informing this work is a longitudinal data system that gives a “360 view of the child” (TDOE, 2010e, p. 15). Included in this 360 view are horizontal and vertical linkages across government agencies, connections to value-added data, and a “dashboard” (TDOE, 2010e, p. 15) for educators showing the full set of supports and challenges faced by each student that could potentially affect that child’s learning.

Prior to this legislation, the use of student performance data was prohibited for the first three years of an educator’s employment, or until after teacher tenure was granted. Now, 50% of all annual teacher evaluations are to be based on student achievement data, with 35% comprised of growth data amassed by the Tennessee Value-Added Assessment System, and 15% derived from other student testing measures. In addition, the state education commissioner is authorized to place chronically failing schools in an Achievement School District aimed at turning the school around, building capacity with effective teachers and leadership, and eventually returning the school to its original district (TDOE, 2010c).

The Tennessee First to the Top Act of 2010, a bill that the Tennessee General Assembly passed on January 15, 2010, addressed the key areas of ARRA reform, particularly with respect to teacher evaluation and turning around failing schools. On March 29, 2010, Governor Phil Bredesen announced that Tennessee was one of two states selected from among 40 states and the District of Columbia in the Race to the Top competition's first round of awards, with approximately $501 million to be received over the next four years for implementation of its comprehensive school reform plans. Tennessee's application was supported by the Tennessee General Assembly, Tennessee Education Association, educators and education advocates, business leaders, and parents and families across all 136 school districts and four special schools (USDOE, 2010c). With approximately $501 million in Race to the Top funding secured (TDOE, 2010f),Tennessee is poised to implement its comprehensive school reform plans over the next four years, with the following major goals:

- Increased rates of proficiency on state and national assessments;
- Decreased achievement gaps;
- Improved teacher effectiveness;
- Increased graduation rates; and
- Higher rates of college enrollment and success (TDOE, 2010e, p. 8).

A Holistic Framework: Nested Systems of Influence

The primary purpose of a high school education is widely recognized in educational research arenas as the preparation of each graduate for postsecondary education, successful employment, and responsible citizenship (e.g., Balfanz, 2009; Stern, 2009). A high school diploma prepares a student for postsecondary education, secures an individual's economic future, and is a foundational component for our nation's global competitiveness (Swanson, 2009; USDOE, 2009a). In keeping with these goals, policy makers, educational leaders, teachers, and parents in communities throughout the United States strive to keep young people in school every day and earning sufficient course credits to remain on track to graduation.

Despite these efforts, over one million high school students drop out of school each year for various reasons (Balfanz, Fox, Bridgeland, & McNaught, 2009). They may choose to drop out of school due to a life event or a situation unrelated to school, or they may give up because they do not see the value of remaining in school. They can be pushed out of school by school staff members who view them as difficult or dangerous. Alternatively, they may fail to succeed academically or attend schools that fail to provide them with the environment and support they need. While the specific reasons a student may give for his or her choice to drop out of school may be unique, the risk factors that lead to dropout tend to fall within two categories: individual academic background and the social background of a student's home and community (Suh & Suh, 2007; Lee & Burkam, 2003). In addition, the structural, academic, and social organization of schools can intersect with students' academic risk factors and social environment to further influence their decisions to drop out or stay in school and graduate.

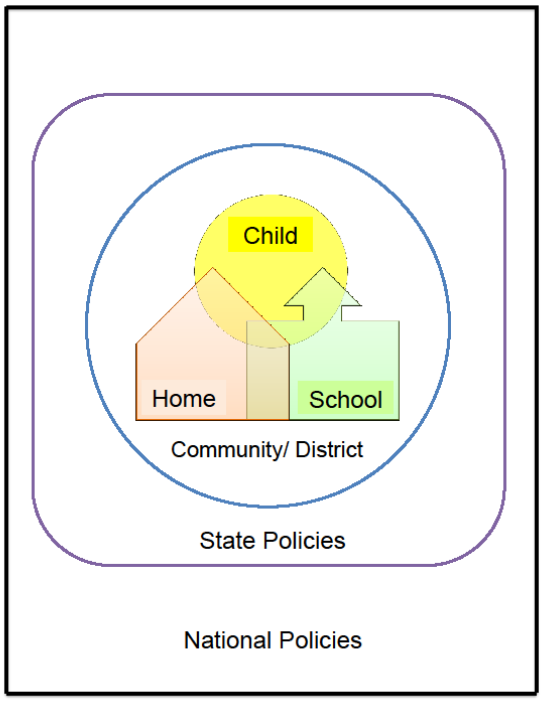

Figure 1. An adaptation of Bronfenbrenner's bioecological systems model for dropout prevention and intervention

Bioecological theory is a holistic perspective on human development that contends that individual development reflects the influence of interconnected environmental systems over the life course (Bronfenbrenner, 1974; Bronfenbrenner, 2005). Researchers have utilized bioecological theory to guide research in such areas as family and child development, psychology, mental health, and education. Research topics have included teenage pregnancy, adjustment to adoption, persistent food insecurity, alcohol dependency, effects of smaller class size, and the role that television plays in the lives of at-risk children (Meade & Ickovics, 2005; Schweiger & O'Brien, 2005; Mammen, Baur, & Richards, 2009; Bogg & Finn, 2008; Ceci & Konstantolpoulos, 2009; and Jordan, 2005).

As depicted in Figure 1, the child is at the center, nested within the interconnected environmental layers in which the child spends time, such as the home and the school (Bronfenbrenner, 2005). The number and quality of connections between these environments as well as the people within these environments have important implications for a child's development. Bronfenbrenner's theory is holistic; changes or conflict in any one layer will ripple throughout the other layers, impacting the child in multiple ways and from multiple directions.

The Child: Academic Risk Factors

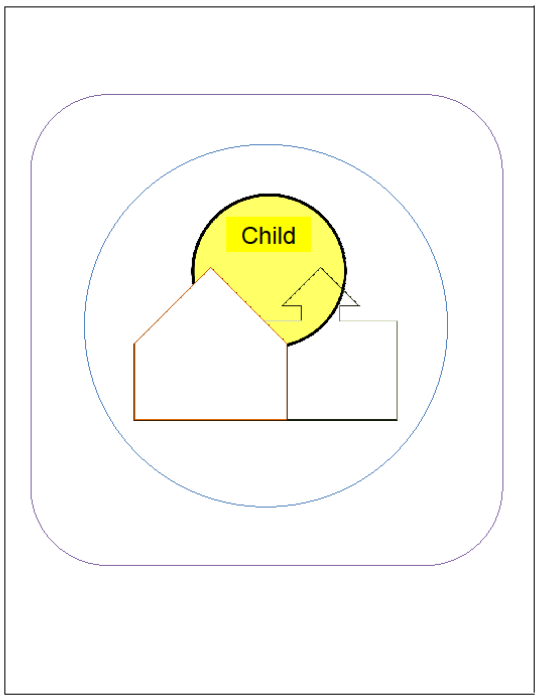

Figure 2. Adaptation of Bronfenbrenner's bioecological systems model for dropout prevention and intervention: The child

Working from the center of the model outward, Bronfenbrenner's bioecological theory posits that characteristics of the child have ramifications for both the home and school environments. Figure 2 highlights the child as nestled between the home and school inner environments, which are themselves contained within concentric circles of outer influence, including the community, state, and nation. When children enter school, they bring with them features that position them to excel or to struggle in class.

Academic risk factors are derived from both school performance and behaviors (Suh & Suh, 2007; Lee & Burkam, 2003). Significant academic risk factors indicative of disengagement and potential dropout include test scores, course grades, course completions and failures, low GPA in eighth grade, absenteeism and truancy, grade retention, transfer among multiple elementary and middle schools, weak student engagement in school, low educational and occupational aspirations, anticipation of enrollment for the next school year, suspensions, discipline problems, and behavioral problems (Lee & Burkam, 2003; Suh & Suh, 2007; Alexander et al., 2001; Tyler & Lofstrom, 2009; Kennelly & Monrad, 2007; Rumberger, 1987; Jerald, 2006). In addition, students who drop out are more likely to have changed schools before or during high school (Lee & Burkam, 2003). Students who are more likely to transfer include African American students, Hispanic students, students from larger families, and students engaging in at-risk academic behaviors (Lee & Burkam, 2003).

As several researchers have found, course performance is more predictive than achievement test scores or background characteristics of students' likelihood to graduate (Balfanz et al., 2009; Heppen & Therriault, 2008). Students who have a very low GPA, receive numerous D's, receive an F in math or English, or two or more F's in any subject are to be considered off track for graduation. Somewhat in support of this research, almost 65% of all Dropout Prevention District Survey respondents rated poor course performance as having a high negative impact on student academic success and graduation, whereas fewer than half (46.2%) of all respondents rated poor test performance as having a high negative impact on these outcomes. Finally, students who are not promoted on time to the next grade are not likely to graduate unless they receive sustained supports (Balfanz et al., 2009).

Kennelly and Monrad (2007) found that academic risk factors are better predictors of dropout than fixed status indicators such as gender, race, and poverty. More than 50% of sixth graders who had an attendance rate of 80% or lower, a low final behavior grade, and who failed either math or English eventually dropped out of school. Balfanz et al. (2009) inform us that students who are absent 10 or more, 20 or more, and 40 or more days of school are sending increasing levels of disengagement signals through their absenteeism. Students will need support to stay on track for graduation if they are suspended or display other signs of disengagement such as not completing assignments, not paying attention during class, lacking motivation, consistently demonstrating mild misbehavior, or acting out in the classroom (Balfanz et al., 2009).

The vast majority of Tennessee educators, school administrators, and support personnel responding to the Dropout Prevention District Survey also agreed that lack of motivation (86.9%), lack of self-esteem (75.0%), and lack of sense of control (76.4%) have a high negative impact on student academic success and graduation. Almost all survey respondents rated absenteeism (88.3%) and truancy (89.7%) as having a high negative impact on student academic success and graduation. About three-quarters of respondents indicated that high rates of mobility or transfer between schools (76.5%) and student disengagement (77.5%) were also significant barriers to student academic success and graduation at the individual level. Teacher-reported discipline issues (64.1%) and behavioral difficulties among peers (69.8%) were also rated by the majority of survey respondents as having a high negative impact on student academic success and graduation. In open-ended comments, district personnel stated that behavior and discipline are "a main challenge…because as each year passes, we are dealing with more serious issues at younger ages" and "so many students with behavior problems are sitting in our classrooms and disrupting those who really want to learn."

Students With Disabilities

Researchers have also found a strong relationship between course failures and graduation rates for students with disabilities, and their dropout rates are significantly higher than their peers without disabilities (Gwynne, Lesnick et al., 2009; National High School Center, 2007). Youth with Individual

Education Plans (IEP) in Tennessee are reported to have a 2008 event dropout rate of 4.3% (TDOE, 2009); however, students with speech/language disabilities and students with physical/sensory disabilities perform similarly to students without identified disabilities in their freshman year courses (Gwynne et al., 2009). Students with emotional/behavioral disturbances and students who entered high school two or more years below grade level had the lowest level of course performance of any group studied (Gwynne et al., 2009). Of those who do not complete high school, about 61.2% are students with emotional/behavioral disturbances and about 35% are students with learning disabilities (Gwynne et al., 2009).

Many students with disabilities may disengage from school as a result of their history of academic difficulties (Gwynne et al., 2009). Students with learning disabilities and students with mild cognitive disabilities do not benefit from the same rigorous study habits as students without identified disabilities (Gwynne et al., 2009). Higher absentee rates are an important factor explaining why students with disabilities fail more classes and have lower grades than students without identified disabilities (Gwynne et al., 2009). Freshman year course performance is a strong predictor of five-year graduation rates for students with disabilities and for students who entered high school two or more years below grade level (Gwynne et al., 2009). Although freshman year indicators are similarly predictive for students with and without identified disabilities, many students with disabilities—especially students with emotional disturbances—remain at risk for dropping out even if they are on-track at the end of ninth grade (Gwynne et al., 2009). Students with prior behavior problems are most likely to fail during transition years and eventually drop out (Kennelly & Monrad, 2007).

Educators, school administrators, and support personnel responding to the Dropout Prevention District Survey indicated that inadequate support services for behavioral and emotional disorders had a moderate to high negative impact on graduation and school success (high, 64.7%; moderate, 22.2%). A similar majority of respondents (high, 61.1%; moderate, 23.1%) rated little or lack of school responsiveness to special education needs as having at least a moderate impact on graduation and school success, while the majority of respondents (80.6%) indicated that little or lack of school responsiveness to student behavior and other issues with discipline has a high impact. On the other hand, though the majority of rankings were also moderate to high, respondents were more mixed in their ratings of the degree to which students' needs for accommodations (high, 44.6%; moderate, 32.4%) or for remediation (high, 59.5%; moderate, 25.8%) presented barriers to those students' success and persistence in school through graduation.

The Early Warning Indicators

A large percentage of students display warning signs years before they actually leave school, indicating that they are disengaging from school or are having trouble with school work (Balfanz et al., 2010b). According to Neild et al. (2007), the earlier a student sends his or her first warning signal, the greater the risk that the student will drop out of school. These researchers report that 80% of the sample sent a warning signal in the middle grades or during the first year of high school, that 50% of the students who sent one or more warning signals ultimately dropped out, and that these students could have been identified as being at risk of dropping out before they entered high school (Neild et al., 2007). While every student who drops out has unique experiences leading to the decision to leave school, researchers have identified common factors that typically predict which students will drop out; these factors are known as early warning indicators. Key warning signals identified in research include school attendance, behavior, course performance, and on-time grade promotion (Balfanz et al., 2009; Neild et al., 2007; Heppen & Therriault, 2008; Jerald, 2006).

A set of early warning indicators was developed by Johns Hopkins University's Center for Social Organization of Schools for the state of Tennessee utilizing longitudinal student data from seven districts

identified by the state as having the most severe dropout and retention problems. Data collected from Cannon, Davidson, DeKalb, Fayette, Memphis, Monroe, and Sequatchie school districts included student demographics, disciplinary actions, achievement test scores, enrollment, student attendance, and course performance information (Balfanz et al., 2010b). Analyses confirmed three key academic behavior indicators for these seven school districts:

- Attendance under 85%,
- Suspension two or more times, and
- Failure in two or more courses (Balfanz et al., 2010b).

Supporting the results of Balfanz and his colleagues, almost all Dropout Prevention Summit participants responding to the Dropout Prevention District Survey agreed or strongly agreed with the findings that attendance (86.5% of all respondents), course failure (91.9%), and suspensions (89.2%) in ninth grade were highly indicative of potential dropouts from school. The vast majority of Tennessee educators, school administrators, and support personnel also agreed or strongly agreed with these findings. Slightly over three-quarters of these respondents indicated that suspensions and expulsions (77.5%) had a high negative impact on student academic success and graduation. In open-ended comments, respondents often noted a cyclical process of dropout, whereby lack of attendance may lead students to fall behind and fail courses. Students who fall behind may feel discouraged, embarrassed, or frustrated in class. These students may act out behaviorally in order to cover up their feelings of inadequacy, and their disruptive behaviors may lead to suspensions. Students who are suspended may get in the habit of not attending class, thereby perpetuating the negative cycle to the point where the student eventually gives up and drops out. The cycle may start with any of the three indicators, but the typical end result is the same: dropout. Respondents frequently noted that the psychological effect of falling behind, failing courses, and performing poorly during high-stakes testing was detrimental to students' continuance in school and that not feeling successful can often cause students to lose interest in and disengage from the educational process. In addition, respondents suggested that truancy was often an indication of poor attitudes regarding the importance of education and that these attitudes were often rooted in the student's home and community. Similarly, behavioral problems were often said to be an indication of difficulties in the home or with course material and were thus a cry for help, but students who act out often have a hard time recovering from being labeled by the school as a troublemaker.

In addition to these three key academic behavior indicators, Balfanz et al. (2010b) found strong potential for dropout among students who are over-age for grade, students who transferred two or more times in one year, and students enrolled in a fifth year of high school. These indicators were found to work effectively in large urban districts as well as smaller rural districts; however, course failure was found to be the most powerful indicator in the rural districts selected for analysis in Tennessee (Balfanz et al., 2010b).

School Transitions and On-Track Status for Graduation

Students who successfully navigate four key transition points have an increased chance of graduating prepared for adult success; these transition points are pre-Kindergarten to elementary school, into the middle grades, into high school, and from high school into college or career (Balfanz et al, 2009). Results from Tennessee educators, school administrators, and support personnel who responded to the Dropout Prevention District Survey supported this trend, indicating that each transition point increasingly presents barriers to student success and eventual graduation. While about one-half of respondents rated the transition from pre-Kindergarten to the elementary grades as having a moderate to high negative impact on probability of graduation (high, 23.9%; moderate, 26.3%), almost two-thirds gave moderate or high ratings for the transition from elementary to middle grades (high, 37.1%; moderate, 28.2%). Transitions

from middle school to high school (high, 59.0%; moderate, 24.2%) and from high school to post-secondary education or employment (high, 61.3%; moderate, 22.5%) were rated by almost two-thirds of respondents to have a high negative impact on graduation.

At any of these four transition points, "students who do not navigate a school transition well face the possibility of personal and academic turmoil and even risk falling off track for promotion and graduation" (Neild, 2009, p. 54). In other words, these students may not earn sufficient course credits in the normally allotted time. Many students will need academic and social support as they enter each transition point; however, the appropriate level of support and information from school adults can help alleviate the negative outcomes especially associated with the transition into high school (Balfanz et al, 2009; Cooper & Liou, 2007). According to Heppen and Therriault (2008), more students fail the ninth grade than any other grade in high school, and a disproportionate number of the students who are held back in ninth grade subsequently drop out of school. Suggestions for helping ninth graders successfully transition into high school include addressing the escalating negative impact of unsuccessful transitions before high school by preparing students for the academic requirements in pre-Kindergarten through eighth grade and requiring parent involvement (Neild, 2009).

Retention in the middle grades and even as early as elementary school is associated with dropout rates. Retention (defined in the survey as being held back or being over-age for grade level) was rated by more than half (58.3%) of all Tennessee educators, school administrators, and support personnel as a high barrier to student success and graduation. Researchers found that 64% of students retained in elementary school and 63% retained in middle school drop out of school (Kennelly & Monrad, 2007). Grade retention in the eighth grade reduces the probability that a student will complete high school by about 14% (Jacob & Lefgren, 2007). Neild (2009) informs us that failing math or English in the middle grades was a "better predictor than standardized test scores of academic difficulty in the ninth grade" (p. 60). Eighth graders who miss five weeks of school and fail math or English have a 75% chance of dropping out of high school (Kennelly & Monrad, 2007). Other researchers have added that "grade repetition just before the transition to high school elevates dropout risk especially; but earlier retentions also boost the odds of dropout, in most instances by several-fold" (Alexander et al., 2001, p. 804). Relatedly, being over-age for grade during adolescence may increase the odds of a student's leaving school. Lagana-Riordan and Aguilar (2009) inform us that "feelings of alienation and disengagement in middle and high school students leave them at risk for increased truancy, absenteeism, and dropout" (p. 140). According to Roderick (1994), students who ended the sixth grade over-age for grade experienced disengagement during middle school and nearly one-quarter dropped out. Risk factors during the middle school to high school transition include family background, curriculum content, inappropriate assessment, unqualified teachers, and school leadership (Cooper & Liou, 2007). Students at risk during the ninth grade transition exhibit poor attendance, a decline in GPA, discipline related problems, and decreased participation in extra-curricular activities (Cooper & Liou, 2007).

Getting off track for graduation during ninth grade has negative long-term educational consequences, and research suggests that about one-third of high school dropouts were never promoted beyond the ninth grade (Neild, 2009). Researchers found that first-time freshmen who were not promoted to the tenth grade had a dropout rate of close to 60%, compared to a rate of less than 12% for students who were promoted on time (Balfanz et al., 2004). When students encounter academic difficulty and course failure in their first semester in high school, it is hard for them to recover and sets them on a slippery slope for future course failures (Roderick & Camburn, 1999). Researchers have found that each additional course that a student fails in the ninth grade increases the odds of that student's dropping out by almost one-third (Neild, 2009). Explanations for ninth graders who get off track for graduation include life-course changes, transition to a new school, inadequate preparation for high school, and the traditional social organization (e.g., class periods, teachers assigned to teach specific subjects, and class changes) of high school

(Neild, 2009). Interconnected risk factors for course failure include academic skill level, motivation, peer influences, level of expectations, monitoring at home and at school, and teacher effectiveness (Roderick & Camburn, 1999). Neild (2009) found that teachers assigned to ninth graders are more likely to be uncertified, new to the profession, new to the school, or sometimes all three and that disorganization and chaos at the beginning of the school year has a negative effect on ninth grade academic performance.

Home Environment

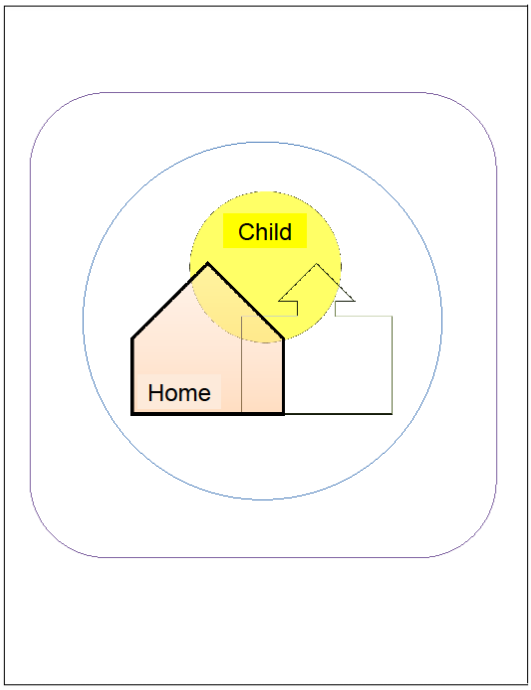

Figure 3. Adaptation of Bronfenbrenner's bioecological systems model for dropout prevention and intervention: The home environment

As shown in Figure 3, the home environment is an important node in the interconnected system of locations within which students spend time and develop relationships. Attitudes regarding education are shaped in the home, and parents pass on to their children the degree to which they value education and take ownership of the process. Parents help students see the relevance of completing high school in regards to their future success (Somers, Owens, & Piliawsky, 2008). Rumberger (1983) reported that a student's family background is a powerful predictor of future dropout behavior, suggesting "that the tendency to drop out begins early in a student's life" and that "attempts to combat the problem should therefore be initiated at an early age as well" (p. 211). Thus, the number and quality of connections between home and school, as well as the people within these environments, have important implications on a child's development.

Risk factors appearing in an individual's social background include demographics such as race, gender, socioeconomic status, family structure, and residence (Lee & Burkam, 2003). Other demographic risk factors identified in research include low educational and occupational attainment levels of parents, a

mother who dropped out of high school, low parental support for learning, lack of parental school involvement, lack of learning materials and opportunities in the home, lack of enrichment activities and resources, physical environment risks, language barriers, single-parent families, household size, living in a stepfamily, family instability, accelerated transition into adult-type roles, working more than 20 hours per week, pregnancy, sex prior to age 15, marriage, urban residence, and geographic region of residence (Suh & Suh, 2007; Lee & Burkam, 2003; Alexander et al., 2001, Rumberger, 1987; Tyler & Lofstrom, 2009; Jerald, 2006).

Results from the Dropout Prevention District Survey document a common belief among educators that an individual's social background is a highly relevant consideration that needs to be made when addressing dropout prevention and when promoting academic success for students in Tennessee. District educators, school administrators, and support personnel have expressed the need to examine the interactions between students, members of the home environment, and school personnel, and how these interactions influence student educational outcomes. The impact of parents on student success was found to be especially strong. Almost 15% of comments indicated that family-level risk factors—most notably, lack of parental involvement in and support for the child's education—were impediments to students' staying in school and graduating, and that efforts to improve parent involvement produced mixed results. Nearly all Tennessee educators, school administrators, and support personnel responding to the Dropout Prevention District Survey agreed that little or lack of parent academic involvement (86.2%) and little or lack of parent monitoring (88.7%) have a high negative impact on student academic success and likelihood of graduating from high school. Somers et al. (2008) found that parent and peer support strongly correlated with grades and that parental expectations of students' school performance predict students' academic achievement and attitudes toward learning. In addition, lower socio-economic parents may be unaware of their role, may feel inadequate to contribute, and may not feel welcome in the school (Somers et al., 2008).

Results from the Dropout Prevention District Survey also document a widespread belief that accelerated transitions into adult-type roles are risk factors for dropout and that a student's family structure can have an effect on that student's performance in school. Alexander et al. (2001) point out when a student assumes adult-type responsibilities, "school may well have the weakest claim" (p. 802), especially when a student finds life outside of school more pressing in personal priority or more attractive. About 14% of comments pertaining to family support reflected a belief that the home environment was a barrier to students' staying in school and graduating. Homelessness was rated similarly as a high-level barrier (82.8%) to student success, suggesting the importance of assuring a child's physical shelter and safety before the child can be expected to focus on school. In open-ended comments on the Dropout Prevention District Survey, respondents noted other factors such as lack of food and being alone at home after school.

In addition, almost all Tennessee educators, school administrators, and support personnel responding to the Dropout Prevention District Survey rated family/household composition as having a moderate to high impact as a potential barrier to student academic success and graduation (high, 70.5%; moderate, 20.7%). Many open-ended comments cited divorce, single parenthood, and parent incarceration as impeding student success in school. Over three-quarters of respondents indicated that a student's marital status has a moderate to high impact as a potential barrier to that student's academic success and likelihood of graduating (high, 56.1%; moderate, 25.1%). The impact of family income as a potential barrier to school success was rated as being moderate to high by over 80% of survey respondents (high, 53.1%; moderate, 30.4%). Similarly, the impact of the level of education achieved by a student's parents was rated as moderate to high as a potential barrier by the majority of respondents (high, 59.2%; moderate, 28.5%). Working to support a family was rated by over three-quarters of respondents as having a negative impact on a student's success in school (76.7%), and about 80% of respondents rated

pregnancy (81.2%) and other child-care responsibilities (79.2%), as having a high negative impact on student success and likelihood of graduating from school.

Community Environment

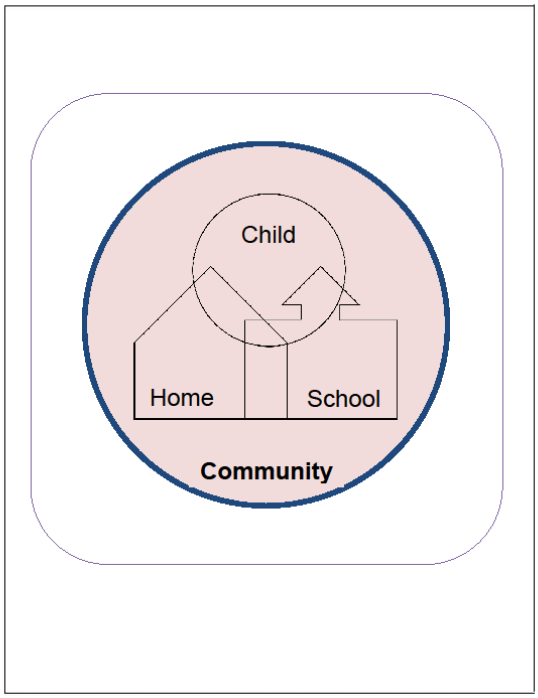

Figure 4. Adaptation of Bronfenbrenner's bioecological systems model for dropout prevention and intervention: The community environment

The community environment is a layer that supports and shapes the immediate settings of both students and their families. As shown in Figure 4, families are nested within the larger network of their local community, which serves as their first point of contact for support and services. Neighborhoods offer the opportunity to family members to build relationships with other members of the community, and through these relationships, norms and values are shaped and sustained. Attitudes regarding education may be shaped in the home; however, the degree to which the community supports these values determines the degree to which students and other family members internalize and respect them.

Somers et al. (2008) suggest that dropping out and the failure of some children to correlate K-12 success to later adult career success are actually symptoms of the larger issues affecting these youth. They point out that variables within a student's family, culture, and physical environment have greater influence on a student's achievement than educational programs. For example, the American attitude of individualism holds the individual responsible for his or her own success or failure (Lee & Burkam, 2003). When individualism is accepted, it tends to let schools off the hook and places the blame solely on the student for making a poor choice. This attitude is not found in every culture and each student's unique cultural influences need to be recognized and understood. Comments from the Dropout Prevention District Survey suggest that family attitudes towards education are a major concern for educators in Tennessee.

About 46% of comments pertaining to family and community support were related to barriers posed by student, parent, and community attitudes. Student attitudes regarding the importance of attending school and completing coursework were said to reflect the home environment. According to one respondent, "Focusing on the high school student population alone ignores the fact that attitudes and values are taught at home and in the community long before they reach high school grades." Consistent with this way of thinking, about 14% of comments pertaining to community support pointed to a need for more social service and support systems in the community for students and families.

Cultural, social, and psychological variables may thus influence the academic persistence and achievement of students. Such variables can include beliefs and attitudes toward the value of an education, peer pressure to devalue academic success, and identification or lack thereof with academics (Caldwell & Siwatu, 2003, p. 32). Griffin (2002) maintains that academic disidentification occurs when students attempt to devalue the importance of academic performance in order to protect their self-perceptions. For example, African American students may not receive academic support from their peers; therefore, some students do not perform to their fullest for fear of losing acceptance by their peers (Somers et al., 2008). One explanation for academic disidentification is cultural opposition, which occurs when members of a minority group adopt behaviors that directly contradict a specific, prominent aspect of the dominant culture (Griffin, 2002). According to Griffin, African Americans and Latinos are often marginalized in school and have developed subcultures that demonstrate cultural opposition toward and lead to detachment from academics. Griffin goes on argue that disidentified students' self-perceptions are not connected to academic behaviors; therefore, for such students, performing poorly in school does not contribute to a student's self-perceptions and would be less predictive of dropout.

Research suggests that by the eighth grade, almost 40% of African American and Latino American students are at risk for school failure (Cooper & Liou, 2007). Other researchers found that African American and Latino American ninth graders were more than twice as likely as Caucasian students to spend an additional year in the ninth grade, boys were retained twice as often as girls, and approximately 5% of low-income ninth grade students were not promoted (Neild, 2009). On the other hand, Balfanz (2009) reports African American and Latino students are two to three times more likely than Caucasian or Asian American students to attend high schools that are confronted with the challenges of concentrated poverty. Many urban African American children come from low income families who are economically poor and socially underserved (Somers et al., 2008). An urban African American student may face violence, poverty, and racism that may be both an academic and emotional hindrance (Somers et al., 2008). The unique cultural factors influencing the academic achievement of Latino students include recent immigration, language barriers, and poverty (Caldwell & Siwatu, 2003). The lack of a Latino family's involvement in their child's education may be due to not understanding or being oriented to their role in their child's education (Patterson et al., 2007). Factors to understand and respect within that culture that also contribute to the lack of involvement include respect for school personnel as authority figures, lack of parental education, family-centered cultural values, language barriers, work schedules, transportation needs, and child care needs (Patterson et al., 2007).

Results from the Dropout Prevention District Survey indicate that these cultural challenges have at least a moderate negative impact on student success in school and should thus be considered when examining dropout prevention programs in Tennessee. The majority of Tennessee educators, school administrators, and support personnel acknowledged that cultural devaluing of education and of academic success was moderate to high (high, 71.1%; moderate, 19.8%). Peer group devaluing of education and of academic success was rated similarly (high, 71.9%; moderate, 20.2%). Additionally, students and families whose race, culture, and language do not mirror those of the public schools need to be taught the cultural knowledge of public schools so that they can successfully navigate the schools (Patton et al., 2007). About half of all Tennessee educators, school administrators, and support personnel responding to the

survey indicated that immigrant unfamiliarity with the U.S. culture (47.7%) and with the U.S. school system (48.3%) both have a strong negative impact on school success. Another one-third of respondents rated the impact as moderate (28.9% and 29.2%, respectively). Respondents also indicated that a student's own language barriers have a high negative impact on that student's success in school and eventual graduation, and another one-quarter (27.2%) of participants rated the impact as moderate. Language barriers experienced by caregivers were rated to have a high negative impact by slightly less than one-half (46.8%) of all survey respondents and about one-third (32.5%) indicated a moderate impact. In addition, transportation difficulties present a barrier to school access when school-provided busing is unavailable, such as is generally the case for parent involvement programs and before-school student academic opportunities. The majority of Tennessee educators, school administrators, and support personnel acknowledged that transportation difficulties have at least a moderate negative impact on student success in school (high, 42.6%; moderate, 27.1%).

When asked what policies, interventions, supports, programs, or other services are needed but are not being provided in Tennessee, one-third of comments reflected a belief that schools need more support from families and communities. One-third of these comments reflected a belief in a need for higher levels of parent and community involvement, and another one-third suggested implementing higher measures of enforcing parent accountability. Results from the Dropout Prevention District Survey indicate that educators in Tennessee perceive that the availability of community supports is a moderate to highly relevant factor for student academic success in Tennessee. Low levels of available community supports were rated as a moderate to high barrier to student success by about three-quarters of respondents (high, 41.1%; moderate, 32.2%). One recommendation arising from these observations is to bolster communities with supports for day-to-day matters for students and their families. For example, a community daycare may provide drop-in childcare services for local families so that the student is not the emergency childcare provider for younger siblings within his or her family. Better systems of transportation would also allow more students and families to participate in after-school educational activities and programs.

School Environment

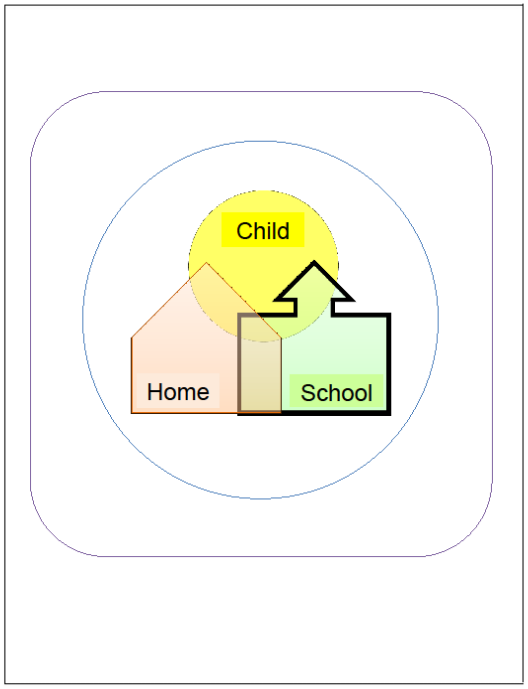

Figure 5. Adaptation of Bronfenbrenner's bioecological systems model for dropout prevention and intervention: The school environment

To comprehend the dropout problem requires considering not only the individual student's risk factors at home and in the community but also the influence that a school's organization, culture, leadership, and teachers may have on a student's decision to stay in or drop out of school (Knesting, 2008; Rumberger, 1987). Increasing evidence supports the idea that environmental factors and organization greatly affect success in school, as opposed to individual factors only. The school environment is one of the interconnected systems in which students spend a large portion of their time and develop peer and adult relationships. As noted above and depicted in Figure 5, the number and quality of connections between home and school, as well as the people within these environments, have important implications on a child's development. District educators, school administrators, and support personnel have expressed the need to address the structural, social, and academic organization of schools and their responsiveness to student needs.

Poverty and Promoting Power

Balfanz and Letgers (2004) consider a high school to have weak promoting power if a school promotes 50% or fewer freshmen to senior status on time. The 1,746 schools with less than 60% promoting power as of 2008 "are, as a group, more urban, larger, and educate student populations that are composed of mostly low-income and minority students" (Balfanz et al., 2010a, p. 24). A closer examination of these so-called "dropout factories" revealed three distinct groups of schools. About 1,000 schools did not improve from 2002-2008; they were responsible for one-third of the nation's dropouts. A little over 900 schools improved from 2002-2008 and are no longer considered dropout factories. Of these 900 schools, one-third made "substantial improvements and are currently outperforming the national high school graduation

average" (Balfanz et al., 2010a, p. 24). Finally, about 700 schools were newly added to the list in 2008. In summary, over half of the 1,746 high schools identified in 2008 as dropout factories have had weak promoting power for a long time, and the remaining schools are those that have seen their promoting power decline over time.

Poverty is a key correlate of high schools with weak promoting power as well as prominently minority high schools, city size, and region (Balfanz & Letgers, 2004). According to researchers, high schools whose majority enrollment is made up of minority students are up to five times more likely to have weak promoting power than a prominently Caucasian school (Balfanz & Letgers, 2004; Balfanz, 2009). Nearly 50% of African American students, 40% of Latino students, and 11% of Caucasian students attend schools where graduation is not the norm, and in 2002 there were between 900 and 1,000 high schools in which the graduation rate was 50% at best (Balfanz & Letgers, 2004). While only 20% of high schools that enroll more than 300 students are located in large- and medium-sized cities, 60% of the nation's high schools with the lowest promoting power are found in these cities, resulting in some students having no choice but to attend a high school with weak promoting power (Balfanz & Letgers, 2004). The location of the majority of high schools with weak promoting power is in northern, western, and southern cities with 80% of these high schools found in 15 states[3] (Balfanz & Letgers, 2004). Five southern states—Georgia, South Carolina, North Carolina, Florida, and Texas—lead the nation in both the total number and the level of concentration of high schools with weak promoting power (Balfanz & Letgers, 2004). Tennessee is not on the list; however, other sources of data included in this report indicate that Nashville and Memphis may also have schools with weak promoting power.

According to Balfanz (2009), "One reason for the intersection of poverty and racial segregation in the nation's high schools is the abandonment of the public school system…, particularly at the secondary level, by middle- and upper-income families in some central cities and Southern counties" (p. 20). Often, students who are working at or above grade level opt out of the low-performing schools for more selective high schools or private schools. Consequently, the lowest performing students are left without a balance of students, particularly "in large urban systems, [where] some high schools are educating only students with high needs" (Balfanz, 2009, p.22). Researchers also contend that the Catholic and non-private Catholic schools' low dropout rate may be explained by students transferring to public schools when attendance, behavior, and course failures become problematic (Lee and Burkam, 2003).

Students educated in cities with high poverty typically have academic performance levels equal to developing countries (Balfanz et al., 2004). In more affluent communities, over 95% of students enter high school with eighth grade proficient academic skills, but in areas with high poverty, NAEP scores indicate that eighth graders possess skill levels closer to fourth graders. These scores are concentrated among minority students in cities in the Northeast, Midwest, Southeast, and Southwest (Balfanz, 2009). In high-poverty, non-selective, inner-city neighborhoods, fewer than one in five students enter high school having reached an eighth grade proficiency level, and most have fifth or sixth grade math and reading skills (Balfanz, 2009). NAEP eighth grade reading proficiency scores were 29% nationally and 25.6% in Tennessee; the NAEP eighth grade math proficiency scores were 31% nationally and 25.2% in Tennessee (NCES, 2009a; NCES, 2009b; NCES, 2009d). Table 6 compares NAEP eighth grade math and reading proficiency in Tennessee with the national rates reported in 2009 (NCES, 2009b; NCES, 2009c). Eighth grade NAEP reading and math proficiency data was unavailable at the state level for Asian/Pacific Islander students.

[3] These include Arizona, California, Georgia, Florida, Illinois, Louisiana, Michigan, Mississippi, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, and Texas.

Table 6. Nation's Report Card 2009: U.S. versus Tennessee percent proficient by ethnicity for 8th grade reading and math

	NAEP 8th Grade Reading % Proficient	NAEP 8th Grade Math Percent Proficient
U.S.	29.0%	31.0%
Caucasian	38.0%	41.0%
African American	12.0%	11.0%
Hispanic	14.0%	15.0%
Asian/Pacific Islander	40.0%	49.0%
Tennessee	25.6%	25.2%
Caucasian	34.0%	30.0%
African American	11.0%	10.0%
Hispanic	21.0%	19.0%
Asian/Pacific Islander	N/A	N/A

Because the overwhelming majority of students attend public schools, it becomes more apparent how critical quality and equity in our public schools are to the ultimate goals of school success and graduation (Balfanz, 2009). Lee and Burkam (2003) propose three critical elements of school organization: structure, particularly size and sector (whether a school is public, Catholic, or private); academic organization (curriculum); and social organization (student-teacher relationships). These are discussed below.

Structural organization: Size and sector

One factor that has emerged as playing an important role in high school success is size. According to Balfanz (2009) and as shown in Table 7, 90% of American high school students attend a public school. 30% of these students attend large or mid-size urban high schools, about 30% attend rural high schools, and 40% attend suburban high schools. Public high schools have various enrollment numbers or sizes: small public high schools have 500 or fewer students enrolled, medium public high schools have between 500 and 1,000 students enrolled, large public high schools have between 1,000 and 2,000 students enrolled, and very large public high schools have 2,000 or more students enrolled (Balfanz, 2009). About 40% of central urban high school students attend a very large high school, 35% of rural high school students attend a small high school, 35% of rural students attend a large high school, and 75% of suburban students attend a large high school (Balfanz, 2009).

Table 7. Percent of U.S. public high school students attending schools of selected sizes in central urban, rural, and suburban areas

High school size	Number of students enrolled	Public high school	Large or mid-size central urban	Rural or small town	Suburban
Small	500 or fewer	15%	10%	35%	
Medium	500-1000				
Large	1000-2000			35%	75%
Very large	2000 or more	25%	40%		
ALL		**90% of all high school students**	**30% of all public schools**	**30% of all public schools**	**40% of all public schools**

For decades, large comprehensive high schools were built and operated as cost-effective answers to how best to educate our nation's youth. Research indicates that dropout rates are higher in public schools, urban schools, and in larger schools (Lee & Burkam, 2003). According to Balfanz (2009), an enrollment size of 500-1,000 students has been the most common in suburban and rural areas. Historically, research has indicated that a school this size provides an optimum balance of personalization and learning opportunities, leading to greatest achievement gains (Darling-Hammond, Ross, & Milliken, 2007). Optimal size, however, varies with the socioeconomic status of the community, and smaller schools may be more important for students from low-income backgrounds (Neild, 2009). According to Darling-Hammond, Ross, & Milliken (2007), an enrollment of 1,000 appears sufficient for affluent students, while lower limits are often necessary for lower income students to significantly improve achievement and graduation rates. Data suggests that smaller schools are better able to produce high levels of achievement overall as well as relatively higher graduation rates. Darling-Hammond and her colleagues found that students are less likely to drop out of schools with fewer than 1,500 students. Similarly, Neild (2009) found an enrollment of 1,000 or fewer to result in greater learning gains.

While school size does have significant implications for school success, the overall organizational features of smaller schools are also critical. Lee and Burkam (2003) found that students who are enrolled in schools with fewer than 1,500 students are less likely to drop out when the relationship between student and teacher is positive. Furthermore, as Darling-Hammond and her colleagues found, positive interpersonal relationships reduce the likelihood of students' dropping out only within the structure of these smaller schools; in larger schools, such relationships are not sufficient to prevent dropping out. These positive attributes of smaller schools are more profound in students who have traditionally had greater gaps in achievement (Darling-Hammond et al., 2007). Opinions expressed by respondents of the Dropout Prevention District Survey are consistent with these findings. Large class size (66.3%) was ranked as a high barrier to student success by a greater proportion of respondents than large school size (48.9%). In addition, almost three-quarters of respondents indicated that a high student-teacher ratio also had a high negative impact on student academic success.

Additional positive outcomes of smaller schools include lower rates of violence and vandalism, more positive feelings about self and school, and increased participation in school activities. These positive student outcomes can strengthen identity with the school, which, in turn, reduces the likelihood of dropping out (Darling-Hammond et al., 2007). Other notable features of smaller schools include improvement in how students and teachers work together, the nature of curriculum, and how access to knowledge is organized, all of which can positively affect student outcomes (Darling-Hammond et al., 2007). Lee and Burkam (2003) found that smaller school size leads to positive teacher attitudes and that "teachers in smaller schools took more personal responsibility for their student's learning than did teachers in larger schools" (p. 361). These are all also attributes that correlate with lower drop-out rates. Darling-Hammond and her colleagues also noted that smaller schools are strongly correlated with a positive composite measure of school climate (e.g., values, norms, beliefs, and sentiments associated with routine practices and social interactions in schools) and that they have a strong negative correlation with dropout rates. Additionally, they found evidence of more positive affective environments (e.g., feelings of belonging, connection, and being known by adults) in smaller schools and have associated these with findings of higher attendance rates and lower dropout rates (Darling-Hammond et al., 2007).

Lee and Burkam (2007) asserted that "high schools, through their organizations, may either force out or hold in students whose personal characteristics might put them at risk of dropping out before they graduate" (p. 355). According to Darling-Hammond et al., (2007), recent trends in high school reform are changing the make-up of American high schools. The traditional, factory model school featured impersonal structures, fragmented curricula, segregated and unequal program options, and the inability to respond effectively to student needs for support. Various reform plans have emerged to combat the

factory model of schools, most notably the creation of smaller learning environments. According to Darling-Hammond et al. (2007), there have been varied approaches to creating small schools or units within large high schools, with varying degrees of autonomy. These approaches include house plans, mini schools, small learning communities, clusters, magnets, and charters, including both those that are stand-alone and those housed within larger schools. While much room for structural improvements exists, improvements in attendance, reported feelings of engagement, and school continuation have been observed often when new schools or small school units are created (Darling-Hammond et al., 2007). Urban students can develop the skills and behaviors needed in order to overcome obstacles and barriers to their academic and career goals (Cooper & Liou, 2007). Researchers have found that school characteristics that promote lower dropout rates include smaller enrollments, better interpersonal relationships among students and adults, supportive teachers, and a focused and rigorous curriculum (Jerald, 2006). Neild (2009) found that growth in student learning was greater in high schools where more reform practices were implemented, where high schools were communally organized, and where an emphasis was placed on student-teacher relationships.

Research shows a strong correlation between a child's ability to become a successful adult and experiencing the "five promises": caring adults, safe places, a healthy start, effective education, and opportunities to help others (Balfanz et al., 2009). Patton et al. (2000) define positive school environments as "those in which students feel supported by adults, have positive peer networks, and feel safe" (as cited by Lagana-Riordan & Aguilar, 2009, p. 140). Students respond positively to a school culture that promotes value, respect, and collegiality, and they tend to disengage from school when they are not supported by the school culture (Somers et al., 2008). Lee and Burkam (2003) found that students who leave high school before graduation cited such factors as a lack of support, being unconnected with teachers even after seeking assistance, teachers' not caring about them, teachers' not being interested in how well they do in school, teachers' being unwilling to help them with their problems, not getting along with teachers, and not getting along with other students. These cited reasons specifically reflect aspects of the school culture or organization.

A related factor that may contribute to high dropout rates is "deficit thinking," which places the blame for student failure on the student and absolves responsibility from schools and teachers. According to Patterson et al. (2007), deficit views of poor and racial minority families are pervasive and intensify the differences between school culture and familial culture. Teachers' deficit thinking characterizes dropouts as unmotivated, not committed to school, and not valuing education. Teachers who favor Caucasian students and students with higher family incomes, while ignoring students of color and those who struggle academically, were perceived by students to show deficit thinking (Patterson et al., 2007). Such negative teacher attitudes were mentioned only minimally in comments as barriers impeding student success in Tennessee.

Some researchers contend that public school culture and structure reflect "white, middle-class values and assumptions, and such values may not be aligned with those of minority students and their families" (Patterson et al., 2007, pp. 4-5). They point out that "changing an organization's structure…does not guarantee that cultural change will follow: if a school culture does not accept or respect the familial cultures of students and address the affective needs of students, reform efforts are not likely to improve academic performance or increase graduation rates" (p. 12). American public schools are typically bureaucratic cultures that emphasize hierarchical power relations, control, accountability, efficiency, regulation, and impersonal relationships (Patterson et al., 2007). In a bureaucratic school culture you will find teachers conducting their work in isolation, teachers with narrowly defined roles and responsibilities, curriculum that is prescribed and regulated, and students who are expected to conform to what the school is able to provide (Patterson et al., 2007).

The majority of educators, school administrators, and support personnel responding to the Dropout Prevention District Survey agreed that small learning communities (high, 52.9%; moderate, 26.4%) and ninth grade academies (high, 45.1%; moderate, 29.1%) had a moderate to high positive impact on improving dropout and graduation rates in Tennessee. Responses were more varied regarding the degree to which charter schools had a negative impact on graduation: a little over one-third rated the impact as low (34.1%), over one-quarter rated the impact as moderate (27.2%), and about one-fifth rated the impact as high (20.5%). Tennessee district respondents were divided in their ratings of the degree to which a bureaucratic school culture was a barrier to student success, where bureaucratic school culture was summarized as a non-personal, hierarchical, top-down administration. Two-thirds of respondents gave moderate to high ratings (high, 35.4%; moderate, 32.5%), and a little over one-quarter (26.6%) of the remainder indicated the impact was low. Comments pertaining to ineffective school-level supports indicated that "top-down decision-making" and a "rigid, authoritarian culture" were aspects of school culture that were not helping to improve graduation rates or school success in Tennessee. In contrast, the majority of respondents to the Dropout Prevention District Survey agreed that lack of a communal or cooperative orientation and little or no emphasis on personal relationships had at least a moderate negative impact on student academic success (high, 43.3%; moderate, 31.6%). One respondent commented that high schools needed to be built more like schools for the lower grades—as communities—or students "don't feel like they belong and they quit."

Information Access: The Pivotal Role of School Counselors

Research shows that many students enter high school with ambitious academic and career goals; however, many students will be excluded from the education process "because they lack the necessary information to successfully navigate and negotiate the educational system and its social distribution of possibilities" (Cooper & Liou, 2007, p. 46). These researchers contend that school counselors are gate-keepers and distributors of information that shapes future academic and career possibilities for their students (Cooper & Liou, 2007). Over three-quarters of Tennessee educators, school administrators, and support personnel responding to the Dropout Prevention District Survey indicated that educational or career aspirations (77.7%) have a high positive impact on student academic success and graduation, but also important are early college awareness programs and campus visits (high, 65.4%; moderate, 19.5%), assistance with college admissions and financial aid applications for students (high, 67.2%; moderate, 18.7%), and college planning and financial aid information for parents (high, 66.3%; moderate, 19.4%). Results from the Dropout Prevention District Survey also suggest that general academic and career advising (high, 64.5%; moderate, 23.0%) can also have a high positive impact on improving dropout and graduation rates in Tennessee. In particular, career exploration programs (high, 66.5%; moderate, 22.0%), job shadowing programs (high, 61.6%; moderate, 22.7%), and internship opportunities (high, 64.8%; moderate, 21.3%) were all rated as having a moderate or high positive impact on improving dropout and graduation rates.

Cooper and Liou (2007) discuss how appropriate support and distribution of information by school personnel can empower students toward academic success during their transition into the ninth grade. They explain that acquiring high-stakes information helps students and their families understand the school culture, policies, and practices in ways in which they can access, embrace, and develop a strong academic self-identity. High stakes information empowers students to make thoughtful decisions, and there is a need to expose students to this type of information early and often during transition periods, but "while white middle class students consistently receive and depend upon this type of information to secure their privileged participation in the schooling process in this country, urban students are often not afforded similar access" (Cooper & Liou, 2007, p. 45). In research conducted by Cooper and Liou (2007), counselors reported focusing on graduating seniors at the expense of ninth grade students even though ninth graders typically had the greatest academic and social needs and despite the importance of high-

stakes information for a smooth transition into high school. In addition, 90% of student participants reported not having strong relationships with their school counselors and indicated that most interactions with their school counselors were for class placement. The researchers conclude that the distribution of high-stakes information is a critical component that creates conditions for school-wide student achievement.

Academic Organization: School Curriculum and Academic Achievement

It is estimated that between one-third and one-half of high school graduates are prepared to succeed in college and that less than 10% of low-income students graduate from college (Balfanz, 2009). Balfanz points to recent studies of educational attainment in large cities with high poverty, where college graduation was found to be rare. In order to close achievement gaps and graduate prepared for college or career training, most students in high-poverty high schools need accelerated learning opportunities through "organizational and institutional restructuring of the entire school" (Balfanz et al., 2004, p. 5).

Balfanz (2009) recommends engaging high school students in coursework that develops the knowledge, skills, and habits necessary for students to succeed in their post-secondary education. Darling-Hammond et al. (2007) found that the successful high schools they studied offered college preparation curriculum to all students, through the Advanced Placement (AP) curriculum and dual enrollment courses. The AP curriculum offers high school students the opportunity to earn college credit for successfully passing various courses and their corresponding standardized exams (The College Board, 2010). Dual enrollment allows students to take college-level courses at partnering postsecondary institutions for college credit during their regular school day in high school (Tenn. Code, 49-15-102). The majority of Tennessee educators, school administrators, and support personnel responding to the Dropout Prevention District Survey rated both AP (high, 53.0%; moderate, 23.7%) and dual enrollment (high, 47.6%; moderate, 25.7%) courses as having at least a moderate positive impact on improving dropout and graduation rates in Tennessee.

Lagana-Riordan and Aguilar (2009) posit that when schools are focused on test scores and narrow curriculum, it can become difficult to assist students in developing resilient traits; therefore, students are not able to tap into the very traits that will make them less likely to drop out of school. Accelerated learning needs to involve more than narrow test preparation. It must be substantial and sustained, motivate students to learn, and take advantage of the strengths students possess. Finally, it must not assume that every student will require foundational instruction, and it needs to be supported by research as effective (Balfanz et al., 2004). In Tennessee, recent years have seen an increased emphasis on the use of best-practice education models and effective curricula. On July 30, 2010, the Tennessee State Board of Education voted to adopt the Common Core Standards (NGA Center & CCSSO, 2010a). The Common Core State Standards Initiative is a state-led effort coordinated by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO), in collaboration with teachers, school administrators, and experts, to provide a clear and consistent framework to prepare the nation's children for college and the workforce (NGA Center & CCSSO, 2010b).

Ultimately, students achieve more when more high-level classes are offered as opposed to more low-level courses, but debate about the ideal and appropriate level of autonomy in high school curriculum and learning is taking place. According to Lee and Burkam (2003), students learn more in schools with a constrained academic curriculum, which they define as being one in which classes are largely academic in nature and where few low-level classes are offered. In such a curriculum, students usually complete the courses that are required in order to graduate, rather than automatically selecting low-level coursework that makes it easier to pass. Despite these findings, over half of all respondents to the Dropout Prevention District Survey indicated that rigid, age-inappropriate curricula were a high barrier to a

student's success in school. When asked what programs or other supports were needed but not being provided in Tennessee to improve school success, one-fifth of all of the comments received pertained to curriculum and instruction. In over half of these comments, district respondents called for a re-examination of the diploma system so as to allow multiple pathways to graduation, including reestablishing a rigorous course of study in career and technical education (CTE) as a viable pathway.

Tennessee district respondents to the Dropout Prevention Survey were mixed in their ratings of little or lack of college-bound orientation in the school's culture (high, 42.2%; moderate, 32.8%; low, 20.8%) as a barrier to student success, but the majority were in agreement that the availability of vocational or technical education had a high positive impact (73.6%) on improving dropout and graduation rates in Tennessee. In Stern's (2009) examination of basic features of contemporary U.S. high schools, he noted a trend toward integrating educational options for both college and careers. According to Stern, the traditional high school model supported differentiated curricula for college-bound and work-bound students. Indeed, in the late nineteenth and early twentieth century, Congress defined vocational education as "preparation for occupations that did not require a bachelor's or advanced degree" (Stern, 2009, p. 217). The rapidly changing economy of the twenty-first century has come to mean that students who might have traditionally followed a vocational track will still need a healthy dose of college-ready coursework in order to maintain competitiveness in an increasingly demanding job market. In Stern's words, "preparing students to be economically self-sufficient increasingly requires that they have the option of attending postsecondary education" (p. 224).

Stern (2009) cites High Schools That Work (HSTW), led by Gene Bottoms, as an important contemporary effort to promote a combined academic and career-technical curriculum. The Southern Regional Education Board (SREB) and a group of state partners launched HSTW in 1987 "to prepare students for careers and further education by improving curriculum and instruction in high schools" (SREB, as cited in Stern, 2009). Now, more than 1,200 sites in the District of Columbia and 30 states, including Tennessee, currently use the HSTW framework to raise student achievement and graduation rates (SREB, 2010a). Comments regarding HSTW were few from district respondents to the Dropout Prevention Survey, but those available reflected the helpfulness of the HSTW conference as a venue for successful school practices. HSTW identified ten key practices that were shown to have an impact on student achievement. One key practice related to academic studies is to encourage students "to apply academic content and skills to real-world problems and projects" (SREB, 2010b). Stern (2009) suggests offering workplace internships, community placements and mentoring, and service learning opportunities in conjunction with rigorous study in related mathematics, science, and other core academic curricula. Two key practices related to work-based learning and CTE are to "enable students and their parents to choose from programs that integrate challenging high school studies and work-based learning and are planned by educators, employers and students" and to "provide more students access to intellectually challenging career-technical studies in high-demand fields that emphasize the higher-level mathematics, science, literacy and problem-solving skills needed in the workplace and in further education" (SREB, 2010b). In addition, HSTW promotes actively engaging students in academic and CTE classrooms "in rigorous and challenging proficient-level assignments using research-based instructional strategies and technology" (SREB, 2010b). Stern (2009) recommends involving adults other than teachers in education, including college teachers, parents, workplace mentors, and other members of the community.

Capitalizing on students' strengths and giving students more opportunities to take ownership of their learning were also suggestions given by educators to reengage students in their education. Several commented that "many students view academics as something that their teacher does 'for' them. Teachers should be more in the role of a facilitator." One district respondent highlighted the power of basic skills mastery in making learning fun:

Somewhere we decided that in order to make education "fun" we needed to entertain in the classroom. The "fun" in education comes from the fact that when the basic skills are taught properly, the child practices and succeeds and gains self confidence that he/she is learning a valuable skill and will take those skills that they use every day onto the next levels. It's a process. Self-confidence builds from the basic building blocks and continues on into adulthood. When a student reaches a bump, he has the confidence to overcome with practice and patience and doesn't expect someone to do it for him. Somewhere we have lost sight of this.

Whether a child goes to college or pursues a career straight out of high school, he or she will need strong reading, writing, study, and self-management skills in order to thrive. Strengthening basic skills education—reading, writing, and arithmetic—and broadening the curriculum to include functional life skills and study skills were heavily emphasized in survey comments as programming that was needed but not currently available in Tennessee. Academic skills below grade level were found to have a significantly negative effect on the promotion of ninth grade students to the tenth grade (Balfanz et al., 2004). More advanced courses of study, including a stronger gifted education program and more preparation for college-level coursework, were also heavily emphasized. Several district respondents noted that gifted children are overlooked and "providing enrichment once a week is not enough to meet their needs. The students become frustrated and bored, which leads to drop-outs." Little or lack of challenging, engaging, and relevant curricula was rated as a high barrier to student success and eventual graduation by about half (50.6%) of the Dropout Prevention District Survey respondents, and as a moderate barrier by another quarter (26.3%) of district personnel in Tennessee. As one district respondent noted, "Students have to believe that they will be able to use what we are teaching."

Similarly, research has found that teachers who use culturally relevant teaching were able to build a sense of identification with academic success for their students (Griffin, 2002). With the help of culturally responsive educators, students can develop skills and behaviors needed to overcome obstacles and barriers to the pursuit of academic and career goals (Cooper & Liou, 2007). Patterson et al. (2007) point out that culturally responsive educators use the students' languages and cultures during instruction and that these teachers are able to create opportunities for students' languages and histories to be seen as strengths and not as deficits. Patterson et al. suggest capitalizing on students' bilingualism and the integration of cultural studies within daily lessons. Engaging schools and teachers promote student confidence in their ability to learn and succeed in school, provide challenging instruction and support to meet high standards, convey high expectations for students' success, provide choices for students, and make curriculum and instruction relevant to the students' experiences, cultures, and goals so that students see value in attending high school (National Research Council and the Institute of Medicine, 2004).

Social Organization

The relationship between teacher and student has been widely noted to be of great importance. Researchers define two levels of social capital created by strong relationships between teacher and student. At the micro level is student capitol, and at the macro level are broad patterns of student-teacher relationships (Lee & Burkam, 2003). Researchers found a positive correlation between the belief that a student will graduate from high school and the presence of a caring adult in the student's life (Lopez, 2009). The 2009 Gallop Student Poll found that engagement peaks during elementary school, decreases from middle school through the tenth grade, and plateaus through the rest of high school (Lopez, 2009). Student responses to a question on the poll regarding engagement, "My teachers make me feel my school work is important," (Lopez, 2009, p. 2) suggest one contributor to disengagement is a lack of recognition or praise from their teachers. Neild (2009) found that teacher/student trust lends to fewer course failures, and there were fewer course failures at schools where teachers offered help with personal problems, gave personal attention in class, and held higher student expectations.

According to Patterson et al. (2007), caring teachers expressed high expectations to students, provided direct and specific assistance, refused to give up on students, varied their instructional methods, offered challenging and interesting curriculum, and held students accountable. Student academic persistence can be perpetuated when teachers listen to their students and communicate interest and caring to them (Knesting, 2008). A supportive student-teacher relationship was perceived by students to include acceptance, respect, politeness, listening, soliciting student opinions, setting high expectations, encouragement, commenting about a student's future, smiles, eye-contact, and trust (Knesting, 2008). Lee and Burkam (2003) found that these social relationships can create powerful incentives for students to come to school although the work may be difficult and the standards and expectations are hard for the student to meet. In open-ended comments, Dropout Prevention District Survey respondents noted the importance of caring relationships with adults for motivation and school success:

> *"Students need to feel they belong. That someone cares about them. They will show up to school and do their best if they feel that some staff member has an interest in them. If someone will miss them if they are absent that day they are much more likely to attend school and try to do their best while they're there."*

Additional Support

Research indicates that the more support students have, both inside and outside the classroom, the more likely they are to stay in school (Balfanz et al., 2009). Balfanz et al. point out that the three main areas where many students may need additional adult support include school achievement (e.g., academic skills and course performance), school engagement (e.g., attendance, behavior, and effort), and life outside of school (e.g., health support, child care, homelessness, and foster care). "The likelihood that students will be motivated and engaged is increased to the extent that their teachers, family, and friends effectively support their purposeful involvement in learning and in school" (National Research Council and the Institute of Medicine, 2004, p. 3).

While parental and peer social support are significantly correlated with a ninth grade student's GPA and educational intentions, teacher support correlates with a student's educational behaviors and attitudes such as intent, commitment, and value (Somers et al., 2008). Academic support from family, friends, and teachers can empower students to believe they have control over and can make changes that will lead to academic success and graduation (Lessard, Fortin, Marcotte, Potvin, & Royer, 2009; Knesting, 2008). It is common for persistent students to see a purpose to graduating from high school, believe they will benefit from earning a diploma, be willing to accept responsibility for doing their work, and be willing to follow school rules (Knesting, 2008). Researchers report that resilient students use problem-solving as a coping strategy, take control of their lives and plan for their futures, possess the capacity of mastery, possess the ability to distance themselves from risks, establish positive relationships, use positive inner discourse, seize new opportunities, transfer benefits into various areas of their lives, do not exhibit anxiety, and show persistence (Knesting, 2008; Lessard et al., 2009).

Student Involvement in School: Structured Co-Curricular and Extra-Curricular Activities

Cosden, Morrison, and Gutierrez (2004) note that student involvement in structured after-school activities has been associated with positive educational outcomes; however, involvement in unstructured after-school activities places them at greater risk of negative educational outcomes. After-school academic support may play a protective role by preventing a loss of school engagement and does the "greatest good when it enhances the students' perceptions that they can be successful at school" (Cosden et al., 2004, p. 221). Researchers note that non-academic after-school activities may promote resilience. Resilient students have been defined as "those who succeed in school despite the presence of adverse conditions" (Waxman, Gray, & Padron, 2003, p. 1). Tennessee educators, school administrators, and

support personnel responding to the Dropout Prevention District Survey agreed that sports (high, 64.4%; moderate, 21.5%) and other extra-curricular activities (high, 63.8%; moderate, 22.3%) had at least a moderate positive impact on improving dropout and graduation rates in the state. The majority of respondents also indicated that academic tutoring (high, 69.2%; moderate, 21.0%) and academic enrichment (high, 62.2%; moderate, 23.4%) opportunities have at least a moderate positive impact on graduation. Researchers warn, however, that it is important to provide after-school homework programs in a manner that does not detract from family and community activities and responsibilities because such conflicts are likely to reduce parental involvement in the school process (Cosden et al., 2004).

School District Environment

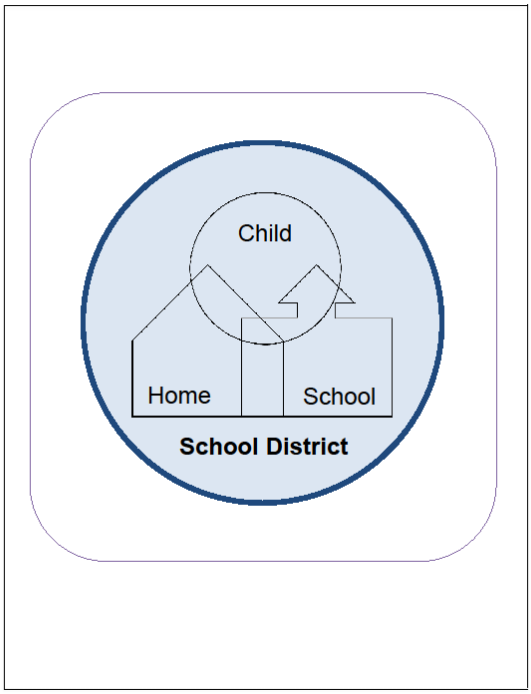

Figure 6. Adaptation of Bronfenbrenner's bioecological systems model for dropout prevention and intervention: The school district environment

The school district environment is an outer layer that limits and shapes the immediate settings of the student through its implementation of local education policies. These local school board policies regulate the functioning of schools and define the roles of caretakers, teachers, principals, and all other stakeholders present in the home and school environments (see Figure 6). Local boards of education have the responsibility of managing and controlling all public schools established or that may be established under its jurisdiction (Tenn. Code, 49-2-203(a)(2)). Specific duties and powers of authority are granted to local educational agencies (LEAs) and their boards of education in areas including personnel and student governance and the establishment of programs outside of school buildings and school hours.

Personnel and Student Governance

Duties of local boards of education related to personnel management and governance include developing and implementing an evaluation plan for all certificated employees in accordance with the guidelines and criteria of the state board of education to be submitted to the commissioner for approval (Tenn. Code, 49-2-203(a)(13)) and electing and making contracts with teachers who are eligible for tenure (Tenn. Code, 49-2-203(a)(1)). LEAs are also responsible for adopting and enforcing standards and policies governing student attendance in accordance with state guidelines (Tenn. Code, 49-2-203(a)(12)) and suspending, dismissing, or alternatively placing pupils in the interest of school educational progress, safety, or efficiency (Tenn. Code, 49-2-203(a)(7)).

Establishment of Programs

Local boards of education have the power to establish, in accordance with state board policy, minimum attendance requirements or standards as a condition for passing a course or grade (Tenn. Code, 49-2-203(b)(7)). Night schools and part-time schools may be established by local boards of education whenever they are deemed necessary (Tenn. Code, 49-2-203(b)(3)) in order to provide additional resources and avenues to graduation. LEAs may cooperate with community organizations in offering extended learning opportunities (Tenn. Code, 49-2-203(b)(14)). LEAs may also establish and operate school-affiliated before- and after-school care programs (Tenn. Code, 49-2-203(b)(11)) and may also allow school buildings and school property to be used for public, community, or recreational purposes under rules, regulations, and conditions prescribed by the board of education (Tenn. Code, 49-2-203(b)(4)). Local boards of education may communicate to parents and guardians, through publications such as student handbooks, information on contacting child advocacy groups and the state department of education for information on student rights and services (Tenn. Code, 49-2-203(b)(13)).

Examination of School Board Policies Affecting Dropout and Graduation Rates in Tennessee

Policymakers and educators would be wise to review current policy and practices in their districts and schools through a discerning lens on a case-by-case basis in order to evaluate whether these policies and practices indeed encourage academic success and improve graduation rates or act as barriers that contribute to dropout rates for their students. In Tennessee, such an examination needs to review in particular how state policies related to the three key academic behavior indicators identified by Balfanz and his colleagues are translated locally in school board policy communications to stakeholders at all levels of the educational process. School systems must be compliant with state guidelines regarding standards and policies governing student attendance (Tenn. Code, 49-2-203) and the code of conduct (Tenn. Code, 49-6-4017).

It is imperative to ask and answer, at all levels of government and policy implementation, the question of whether districts and their local boards of education accomplish an effective communication of attendance, behavior, and grading policies to students and their parents. Such communications, when mindfully formulated, can both set the tone and create the conditions for effective school-home partnerships in education. The readability, thoroughness, and philosophy communicated in such publications, in turn, can influence the level of comprehension and support that stakeholders at all levels have of their roles, rights, and expectations within the school-home partnership.

Twenty-three school districts in Tennessee were selected for a preliminary scan of their local school board policy manuals and student handbooks, which were available from school and district websites. Included in the scan were ten districts with high promoting power in 2006-2008 (Alliance for Excellent Education, 2010), six recipients of state funding to “support improvement or expansion of dropout prevention services, outreach, or program evaluation” (Tenn. Code, 49-1-520(a)), and the seven districts

identified by the state as having the most severe dropout and retention problems (Balfanz et al., 2010b). These districts were scanned for their delivery and elaboration of policies related to the three key academic behavior indicators identified by Balfanz et al. (2010b): attendance, student behavior code and disciplinary consequences, and grade promotion requirements. Promoting power was ranked according to the 2006-2008 graduation rates of all high schools within each district.

All 23 districts produced at minimum the basic regulations pertaining to both attendance and the code of conduct, and all but one district provided basic information pertaining to the grading scale and grade promotion. A few high schools and school boards were observed to go beyond stating bare policy, making an effort to explain the overarching purpose of all policies as well as the reason for communicating them school-wide: to enhance the overall learning experience by educating all participants of the invaluable role that each plays in creating a harmonious and productive school environment.

Basic and Exemplary Statements of Student Attendance Policy

Attendance policies were commonly introduced by the statement, "Attendance is a key factor in student achievement and therefore, students are expected to be present each day school is in session" (e.g., Claiborne County Board of Education, 2010; Johnson County Board of Education, 2010). Typically following this statement were definitions of what constituted an excused absence, how many excused absences could be obtained per term, any reporting or disciplinary actions following unexcused absences, and a statement regarding the Tennessee statute that allows up to 10 consecutive or 15 total unexcused absences per 18-week semester or the failure of three subjects within a 9-week period before driver's license privileges are withdrawn until the student reaches 18 years of age. Many comments from Tennessee educators indicated that linking attendance and course performance to driving licensure privileges in this manner has been effective in keeping students in attendance at their schools.

In two districts with high promoting power, student handbooks went a step further by integrating the basic attendance policies within the larger context of the learning experience:

> *Maximum effort is made in all classrooms to provide a quality learning experience each day; therefore, time out of a class represents a loss of valuable learning* (Knox County Board of Education, 2010).

In just a few brief sentences, one high school brought the context of learning back full-circle to the students and parents and their role in the endeavor:

> *It is our expectation that all Ravenwood High School students will attend school every day school is in session. We expect parents to support us in reaching this goal. Regular, uninterrupted attendance is an essential ingredient in the learning process* (Williamson County Board of Education, 2010a).

Basic and Exemplary Statements of Student Behavior Policy

The standard local school board formulation of the Code of Behavior and Discipline begins with the following set of statements regarding the delegation of administrative duties regarding its implementation and supervision to the director of schools and the principal of each school:

> *The director of schools shall be responsible for the overall implementation and supervision of the Board's Code of Behavior and Discipline and shall ensure that students at all schools are subject to a uniform and fair application of the Code.*

The principal of each school shall be responsible for implementation and administration in his/her school and shall apply the Code uniformly and fairly to each student at the school without partiality and discrimination.

The Board delegates to the director of schools the responsibility of developing more specific codes of behavior and discipline which are appropriate for each level of school, namely, elementary, middle, junior high and senior high. The development of each code shall involve principals and faculty members of each level of school and shall be consistent with the content of the Board's Code (e.g., Claiborne County Board of Education, 2010; Johnson County Board of Education, 2010).

Following this, the board policy manual typically states where the Code shall be posted and who shall be supplied with copies:

A copy of the Code shall be posted at each school and school counselors shall be supplied copies for discussion with students. The code shall be referenced in all school handbooks. All teachers, administrative staff and parents shall be provided copies of the Code (e.g., Claiborne County Board of Education, 2010; Johnson County Board of Education, 2010).

The disciplinary procedures are commonly introduced with a statement such as, "The following levels of misbehavior and disciplinary procedures and options are designed to protect all members of the educational community in the exercise of their rights and duties" (e.g., Claiborne County Board of Education, 2010; Johnson County Board of Education, 2010). There is then a delineation of four or five levels of misbehaviors and exercisable consequences, each introduced in fashion similar to the following:

MISBEHAVIORS: Level I - Minor misbehavior on the part of the student which impedes orderly classroom procedures or interferes with the orderly operation of the school, but which can usually be handled by an individual staff member.

MISBEHAVIORS: Level II - Misbehavior whose frequency or seriousness tends to disrupt the learning climate of the school. Included in this level are misbehaviors which do not represent a direct threat to the health and safety of others but whose educational consequences are serious enough to require corrective action on the part of administrative personnel.

MISBEHAVIORS: Level III - Acts directly against persons or property but whose consequences do not seriously endanger the health or safety of others in the school.

MISBEHAVIORS: Level IV - Acts which result in violence to another's person or property or which pose a threat to the safety of others in the school. These acts are so serious that they usually require administrative actions which result in the immediate removal of the student from the school, the intervention of law enforcement authorities and action by the Board (e.g., Claiborne County Board of Education, 2010; Johnson County Board of Education, 2010).

In four districts with high promoting power, as calculated by the graduation rates of their high schools in 2006-2008, school board policy manuals and student handbooks went a step further by integrating the basic Code of Behavior and Discipline within the larger framework of the Code's purpose:

Schools should be safe and secure places for all students, teachers, and staff employees. Without a safe learning environment, teachers cannot teach and students cannot learn. Recent concerns by schools, local authorities, and the state and federal governments have prompted us to focus on improving the safety of our schools (Clay County Board of Education, 2010).

All students enrolled at Greeneville High School are expected to treat themselves and others with RESPECT at all times. The GHS discipline is designed to provide prompt, consistent, and effective consequences for students who choose to interfere with the rights of students to learn and teachers to teach (Greene County Board of Education, 2010).

Two of these districts expanded the Code's purpose a level further and reengaged the student body in the process of ensuring a safe and secure environment for learning by outlining their rights and responsibilities in creating it:

> *As a student of Richard Hardy Memorial School you have a right to a good educational environment and at the same time, you have a responsibility to do your part in providing it. If we all work together, interdependently, we make this a truly great school and you will get an excellent education. So let us look at both your rights and corresponding responsibilities. Therefore, all decisions will be yours, and so will the consequences. Your first responsibility, then, is to decide how you should conduct yourself while you are at school. Your second responsibility is to be prepared to accept the consequence of your actions* (Marion County Board of Education, 2010).

The most exemplary policy statement to this effect was provided in a high school student handbook from Williamson County, updated for the 2010-2011 school year:

> *Ravenwood High School has been building a tradition of excellence since its opening in the fall of 2002. As a student of Ravenwood, you are asked to help contribute to that tradition. Generally speaking, students must observe six principles if they are to get the most from their educational opportunity and Ravenwood is to be an excellent school. By maintaining high personal expectations for success, utilizing open communication with staff and fellow students, and following the guidelines listed below, you both increase your opportunities for success and help to make Ravenwood an excellent school.*
>
> 1. *Accept responsibility for your education, decisions, words, and actions.*
> 2. *Act in a way that best represents your school, parents, community, and self to promote a safe, healthy environment in which to learn.*
> 3. *Be active in the school and community.*
> 4. *Maintain a balance between academics, co-curricular activities, and community projects, continually giving your best effort to each.*
> 5. *Support your fellow students and their activities.*
> 6. *Respect cultural diversity, individuality, and the choices and rights of others.*
>
> *These six general principles form the foundation of the code of conduct at Ravenwood High School. If you act in accordance with these principles, you will be within the rules of the school, and more importantly, you will increase the likelihood of experiencing personal success in and satisfaction with the school* (Williamson County Board of Education, 2010a).

Basic and Exemplary Statements of Student Performance Grading Policy

Information that school districts and local high schools minimally provided pertaining to the grading scale and grade promotion requirements included the uniform grading scale (TN State Board Rule 0520-1-3-.05), calculation of the grade point average (GPA), grade level classifications, and diploma requirements for students entering the ninth grade during the 2009-2010 school-year forward.

In four districts with high promoting power, as calculated by the graduation rates of their high schools in 2006-2008, the process of grade promotion was explained more fully and system-wide supports for academic planning were more evidently in place:

> *Prior to the ninth grade, all students will develop a four-year plan of focused and purposeful study. This plan will be developed when the student is in the eighth grade by the student, parent(s), and faculty advisor or guidance counselor. The plan will be reviewed annually* (McMinn County Board of Education, 2010).

The student handbook of a high school in another county dedicated an entire chapter of the handbook to detailing the components of academic planning, with a clear emphasis on postsecondary enrollment as the end goal. Beginning thus with statistics on the percentage of graduates entering two-year and four-year colleges, further sections of the handbook provided postsecondary-planning information including a bulleted outline of specific information pertaining to each grade level, a listing of courses meeting college entrance requirements, information on advanced and credit recovery programs, scholarship information, and a description of the school's own dual enrollment program (Greene County Board of Education, 2010).

Another exemplary board policy manual provided a listing and description of each of the factors that would be considered in making a decision on promotion and retention:

1. Mastery of essential competencies*. Students shall have mastered essential skills sufficiently to ensure a likelihood of success at the next grade level.*
2. Special procedures for special students*. Students who have been identified as having special problems, including high risk students and others with special needs, shall be given special consideration. Placement of students with IEPs shall be determined by the IEP-Team.*
3. Flexible placement*. Use of conditional promotion, remedial summer programs, assignment to transitional classes, and other approaches to meeting the needs of students shall be given consideration.*
4. Attendance*. Attendance shall become a relevant factor only when excessive absenteeism becomes an educational problem.*
5. Conduct*. Retention shall not be used as a disciplinary measure.*
6. Previous retention*. Except under unusual circumstances, students shall not be retained more than once in the same grade.*
7. Grade level*. Retention shall be considered more appropriate in grades K-3* (Clay County Board of Education, 2010).

In the final exemplary board policy statement that was observed in the current scan, academic achievement and related policies were prefaced with the underlying educational philosophy of that school board, which emphasized a "comprehensive career development":

> *The Williamson County Board of Education seeks to create and to provide students with a learning environment in which each student acquires skills and knowledge for life-long learning and develops responsibility for disciplined self-direction. Education is available to all students regardless of sex, race, color, national origin or disability. We believe in each student's dignity, worth and unlimited potential for growth.*
>
> *We believe that education is relevant to the student, community, society and world. Experiences provided in the curriculum relate to and promote the richness and diversity of human experience and inspire each student to improve the condition of mankind. The learning experience is planned to facilitate the development of personality, physical health and critical thinking to enable the student to face the future with confidence and to cope with changing world conditions.*
>
> *We believe that a comprehensive career development program is an integral component of public education. To attain occupational competencies and related academic achievement is a shared responsibility of home, school and community. Career education develops salable skills, good work habits and ability to get along with others. Provision is made to utilize career experiences provided by business and industry under a plan in which students are selected and supervised in those experiences which are meaningful to the learner, useful to the employer and acceptable to*

teachers and parents. In the final analysis, we believe all learning is personal. The student acquires critical thinking skills, respect for self and others, and capacity for self-direction and achievement as a contributing member of society (Williamson County Board of Education, 2010b).

State Environment

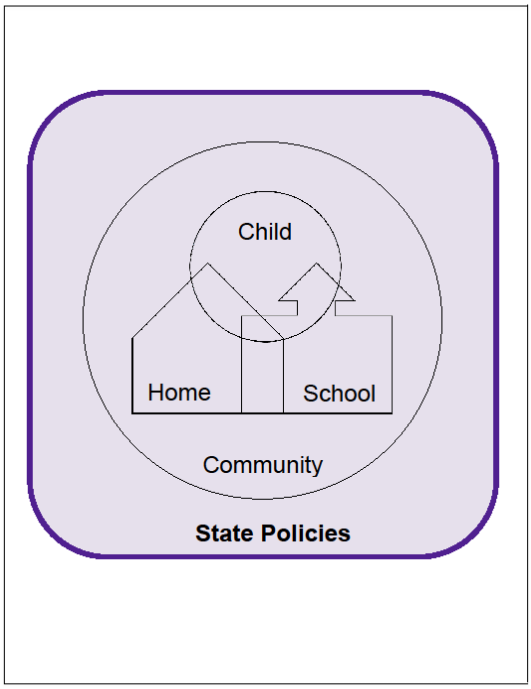

Figure 7. Adaptation of Bronfenbrenner's bioecological systems model for dropout prevention and intervention: State policies

The state environment is an outer layer that limits and shapes all of the above inner environments through its institutions, policies, and laws. The state board of education is responsible for developing and maintaining a current master plan for the development of public education for kindergarten through grade twelve (K-12) and providing recommendations to the executive branch, the general assembly, the local boards of education, and directors of schools regarding the use of public funds for education (Tennessee Code [Tenn. Code], 49-1-302(a)(3)). To this end, the state board of education has the power and responsibility to study K-12 programs of instruction in public schools, to analyze school needs, to study the use of public funds for schools, and to provide annual recommendations to the governor and general assembly for public education funding (Tenn. Code, 49-1-302(a)(1)). Stern (2009) recommends the consideration of incorporating measures of educational outcomes and not just attendance numbers into funding formulas. In addition, the state board of education has the power and responsibility to set policies governing the completion of elementary, middle, junior high, and senior high schools, the evaluation of individual student progress and achievement, the evaluation of individual teachers, and school-level measurements of educational achievement (Tenn. Code, 49-1-302(a)(2)). The state board is also responsible for determining ways and means of improving teacher, student, and school performances and for setting policies to accomplish these improvements (Tenn. Code, 49-1-302(a)(12)).

Tennessee's commissioner of education is responsible for the implementation of law or policies established by the general assembly or the state board of education, as delineated in Title 49 of Tennessee Code (49-1-201(a)). The commissioner is responsible for seeing that school laws and regulations are faithfully executed as they are set forth by the state board of education (Tenn. Code, 49-1-201(c)(5)). Accordingly, the commissioner has the authority to prepare and present to the state board for review any rules and regulations that are necessary to implement the education laws of the state and the policies, standards, and guidelines of the state board (Tenn. Code, 49-1-201(c)(20)). In addition, the commissioner of education may waive any state board rule or regulation that inhibits or hinders a local education agency's (LEA) ability to implement innovative programs designed to improve student achievement, with the exception of regulatory or statutory requirements related to civil rights, health and safety, and public records, immunizations, possession of weapons on school grounds, background checks and fingerprinting of personnel, special education services, student due process, parental rights, student assessment and accountability, and open meetings (Tenn. Code, 49-1-201(d)(1)).

Personnel and Student Governance

The state board of education has the power and responsibility to adopt policies governing the qualifications, requirements, standards, licensing and certification, revocation of licensure or certification, evaluation, retraining and professional development of public school teaching and administrative staff (i.e., teachers, principals, assistant principals, supervisors, and directors of schools) (Tenn. Code, 49-1-302(a)(5)). In addition, the state board is responsible for developing a professional credentialing program for school principals that includes professional training and testing components (Tenn. Code, 49-1-302(a)(15)). Furthermore, the state board is responsible for developing and adopting rules and regulations that provide K-12 teachers with duty-free lunch and planning periods during the established instructional day. A teacher's duty-free lunch period is to be, at minimum, the length of the student lunch period (Tenn. Code, 49-1-302(e)(1)) Teachers are also to be given two-and-one-half hours of planning time each week, during which their sole responsibility is to plan for instruction (Tenn. Code, 49-1-302(e)(2)).

The state board of education is responsible for setting policies regarding K-12 graduation requirements (Tenn. Code, 49-1-302(a)(6)) and governing all curricula and courses of study in the public schools (Tenn. Code, 49-1-302(a)(8)). Considerations to be made at the state level include guidelines to be applied by local education agencies in fostering foreign language fluency as part of holistic education for all K-12 students (Tenn. Code, 49-1-302(a)(20)). The commissioner of education has the authority to approve cooperative career and technical training programs that LEAs or public charter schools propose to operate, including work experience and career exploration programs that meet state board policies and guidelines (Tenn. Code, 49-1-201(c)(28)).

Establishment of Programs

The state board of education is also responsible for enforcing standards for the care of children in any before- or after-school child-care programs; for child-care provided by church-affiliated schools; for early childhood education programs administered by public schools; for child-care provided in federally regulated programs including Title I preschools and all school-administered Head Start and Even Start programs; for state-approved Montessori school programs; and for programs operated by private schools (Tenn. Code, 49-1-302(l)(1)). The commissioner of education is responsible for conducting a program of public information concerning K-12 public education that has been approved by the state board of education (Tenn. Code, 49-1-201(c)(21)).

Examination of State Policies Affecting Dropout and Graduation Rates in Tennessee

It is imperative to ask and answer the question of whether the state education code effectively communicates the essential function that education holds for achieving positive outcomes for all citizens. The state education code can both set the tone and create the conditions for purposeful reflection within local school boards of education on the degree to which their policies and regulations support state-wide success and growth. The readability, thoroughness, and reasoning behind the state education code, in turn, can influence the level of comprehension and support that stakeholders at all levels have of their roles, rights, and expectations within district-community and school-home partnerships.

In addition to Tennessee, seven other states were selected for a preliminary scan of their education statutes: Delaware, Georgia, Illinois, Massachusetts, Philadelphia, Kentucky, and Vermont. Selection criteria for the preliminary scan included geographic, population, or promoting power similarities with Tennessee, Race to the Top award funding, and reform strategies frequently appearing in literature.

On the basis of these states' statements of purpose alone, Vermont's education code was observed to surpass all in providing an explanation of the overarching purpose of all policies in education as well as the reason for communicating them statewide: to enhance the competitiveness "of Vermont's children in a rapidly-changing society and global marketplace":

> *The right to public education is integral to Vermont's constitutional form of government and its guarantees of political and civil rights. Further, the right to education is fundamental for the success of Vermont's children in a rapidly-changing society and global marketplace as well as for the state's own economic and social prosperity. To keep Vermont's democracy competitive and thriving, Vermont students must be afforded substantially equal access to a quality basic education. However, one of the strengths of Vermont's education system lies in its rich diversity and the ability for each local school district to adapt its educational program to local needs and desires. Therefore, it is the policy of the state that all Vermont children will be afforded educational opportunities which are substantially equal although educational programs may vary from district to district* (Vermont Code, 2009).

From 2001 to 2007, Vermont's overall state graduation rates have steadily remained within the range of 80-88% (NCES, 2010b). In addition, while Tennessee's overall state graduation rate increased the most during that time period, from 59.0% to 72.6%, for a total change of 13.6%, Vermont's percentage improvement in promoting power was also high, at 8.4% (NCES, 2010b). While a direct statistical correlation cannot be made due to the interplay of multiple factors, it can be inferred from the opening statements in the Vermont education code that its education system empowers all of its stakeholders to maintain high levels of performance with purpose-driven policies.

District educators, school administrators, and support personnel and a scan of state and local policy indicate a need for a state-level review of educational policy and reforms, their impact, and their effectiveness regarding Tennessee students and families. Policies and practices at the state, district, and school levels may act as barriers and have a negative impact on graduation rates. The National Research Council and Institute of Medicine (2004) contend that in order for engaging high schools to become the norm, policies should include the following major components: agreement at the state, district, and school levels that change needs to occur; common indicators of student achievement; conception of how change across all levels is to be implemented; resources that are needed and must be provided; timeline across all levels; a public and visible accountability plan that is tied to resource map and timeline; and a mechanism for examining progress and resource support that is needed for both start-up and sustaining costs. Balfanz et al. (2009) encourage states, districts, and schools to consider how policies and their implementation may influence graduation rates for their students. Table 8 summarizes a recent review by Balfanz et al. (2009) of current policy implementation practices in American high schools, followed by

emerging findings that they encourage policy makers to consider in their review of their own districts and schools.

Table 8. Current implementation of policies and emerging findings of best practices

Policy or practice	Current implementation	Emerging findings
The legal dropout age	When the legal dropout age is 16 or 17, it gives the message that dropping out is an acceptable or natural outcome for some students.	Some states are raising the dropout age to 18 and provide supports for struggling students.
Attendance	In some districts, no formal response to student absence is required until students miss a certain number of consecutive days.	A better policy demands that every absence have a response.
Promoting GED as an alternative to completing high school	Too often a school, district, or community stresses the equivalence of a GED to a high school diploma.	Statistics show otherwise, indicating a GED and a high school diploma are not equal.
Grade retention	Social promotion does not work, but neither does holding students back, especially adolescents.	Rather than holding students back, it is more effective to use extended school days, Saturdays, and summer school to enable students to catch up.
Grade promotion policies	In some districts, if students do not earn enough credits to be promoted from a grade, they must repeat the entire grade and retake classes they have already passed.	A better policy would require students to retake only the classes they have failed and would ensure that they receive supports so that they can rejoin their peers mid-year or earlier.
Promoting alternative schools to all struggling students		Alternative schools play an important role when they are designed to meet the needs of students who require specific supports or structure to succeed.
Grading policies	In some districts, students are graded on a scale from 0 to 100. When a student receives a 0 for a missed assignment or exam, it makes it nearly impossible for the student to recover.	Better policies include setting the scale from 60 to 100 or to implement a “B or better” policy.
School accountability measures	Some state policies for school improvement stress higher test scores rather than higher graduation rates.	

The Dropout Prevention Survey asked respondents to indicate the degree to which state policies were perceived as barriers student success and graduation. These policy domains included attendance, behavior and discipline, graduation requirements, curriculum, and support providers and services. Certain of these generated high response in both open- and closed-ended feedback. Table 9 presents these policies in order of those perceived to have the highest negative impact on dropout and graduation rates in Tennessee.

Table 9. Impact of policies on graduation rates in Tennessee: Dropout Prevention District Survey impact ratings and comments of note

Policy or practice	Impact ratings	District suggestions and comments of note
The legal dropout age	High, 63.9%; Moderate, 21.3%	Raise legal dropout age to 18 or 19—when student is a legal adult. "Many drop out with only one semester of school left just because they can."
Attendance	High, 63.6%; Moderate, 20.1%	"I think the state needs to make parents more accountable for their child's education. This includes attendance, behavior issues, and providing what their child needs as far as counseling, extra help, etc." "I feel that we let absenteeism and tardies slide from the very beginning of a child's education, thus allowing habits to be created and sustained. In the beginning, these are the habits and fault of the parent; however, these bad habits become a way of life for the child once they are practiced for several years."
Promoting GED as an alternative to completing high school	High, 56.7%; Moderate, 24.4%	"The GED programs let the students know that they can drop out and they can make it up later on in life. It gives them a way out and a way to not have to graduate." "School administrators know that the best path for some students is to take and pass the GED. However, the school could be punished with a lower graduation rate if students are referred to this option. The child's best interests should prevail."
Grade retention	High, 55.6%; Moderate, 25.3%	"We continue to practice social promotion without curriculum mastery." "Students learn that they don't have to do anything and still get rewarded." "It seems that when the students begin early and are not ready to move to another grade, we have been discouraged from keeping them. In many instances we were not allowed to retain the students. So they were passed on and had many problems with attendance, grades, and behavior."
Grade promotion policies	High, 54.7%; Moderate, 26.7%	"Early promotion to high school (skip 8th grade) has a negative impact as these students are usually lacking the maturity, study skills, and behavioral skills to succeed with their older peers."
Promoting alternative schools to all struggling students	High, 52.3%; Moderate, 27.9%	"Students can be assigned to attend alternative educational programs due to attendance or behavioral problems, but in that setting there may be few provisions for social/emotional counseling or goal oriented discussion and monitoring. These placements may serve as a negative consequence for students, but [they] often do not provide the necessary components for them to make positive changes."
Grading policies	High, 49.6%; Moderate, 29.9%	"Credit recovery in our system has been both helpful and ineffective. With correct supervision, it is useful, but with computer learning alone, students are only learning to take tests on a computer (which is how our credit recovery system works) rather than learning the knowledge to help them after graduation."
School accountability measures	High, 48.1%; Moderate, 27.8%	"Administrators do not feel supported in enforcing their policies on graduation because of the fear that the state will intervene." "No Child Left Behind has been a disaster. Any programs that focus on promoting graduation rates, rather than on promoting student learning will lead to disaster. Graduation must be an accomplishment, not an endowment. Student self-esteem is at a nadir because of the irrelevance of most school activities to their future."

Development of an Early Warning Response System

Dropping out of school is referred to by researchers as a gradual disengagement process that for some students begins as early as the first grade (Alexander et al., 2001; Griffin, 2002; Lee & Burkam, 2003; Disla, 2004; Tyler & Lofstrom, 2009). Lee and Burkam conclude that dropping out may be a student's final attempt at a solution to his or her academic problems. Rumberger (1987) identified the need for a causal model of the dropout process to uncover what leads to dropout, to explore interrelationships among factors associated with dropping out, to measure the cumulative effect of the influences on dropping out, to address the different types of dropouts, and to determine the various reasons given for leaving school. Neild et al. (2007) acknowledge the challenges that policy makers and educators face and recommend that they develop an early warning system, develop a set of structures and practices within schools to review data and identify students sending warning signals, and respond with appropriate interventions for at-risk students.

While dropout rates are higher among some demographic groups, more efficient predictors of dropout involve utilizing indicators of student engagement as measured by routinely available longitudinal data collected by schools that is empirically based (Balfanz, et al., 2010b; Heppen & Therriault, 2008; Jerald, 2006). "An early warning system that uses indicators based on readily accessible data can predict, during students' first year in high school, whether the students are on the right path toward eventual graduation" (Heppen & Therriault, 2008, p. 1). By identifying students at high risk for dropout, schools can then target effective programs and resources to keep these students in school as well as identify patterns and school climate issues that may contribute to dropout decisions (Jerald, 2006; Heppen & Therriault, 2008; Kennelly & Monrad, 2007). A checklist approach does not work and often leads to misclassification and unnecessary placement into prevention programs (Jerald, 2006). A longitudinal data system that tracks information such as student attendance, course performance, promotion status, and engagement indicators can be established as early as the fourth grade (Kennelly & Monrad, 2007) and can assist school districts in identifying the highly predictive risk factors for students in their own systems (Heppen & Therriault, 2008).

Pragmatic applications for an early warning system are to target students for effective and appropriate interventions and to monitor students' progress. Building an effective and efficient early warning system is a two-phase process that involves conducting a cohort-based longitudinal study aimed at identifying risk factors for a given school system and development of a data system utilizing the research findings (Jerald, 2006; Kennelly & Monrad, 2007). According to researchers, an early warning system should collect attendance, behavior, course performance, and earned on-time promotion data (Balfanz et al., 2009). "Low levels of attendance are a strong predictor of course failure, and course failure in ninth grade is a strong predictor of dropping out" (Balfanz et al., 2010b). Attendance data can include the number of days absent or the daily attendance rate during attendance benchmarks. Course performance data can be made up of freshman course failures, freshman GPA, and credits earned in each term (Heppen & Therriault, 2008; Jerald, 2006). An early warning system can be implemented at the school and district levels, with the state providing critical support through access to key information and the use of integrated longitudinal data systems (Heppen & Therriault, 2008).

Heppen and Therriault (2008) inform us that school districts are "positioned to initiate the development of strong early warning systems by starting with a retrospective, longitudinal analysis of their own students' dropout and graduation patterns" (p. 8). By examining the unique factors that are associated with past students' dropout and graduation rates specifically within their district, educational leaders can implement customized early warning systems that accurately predict students at highest risk (Heppen & Therriault, 2008). District-level systems give district officials information they can use in order to become proactive instead of reactive. Information about interventions provided to students can be entered in the early warning system in order to track their effectiveness within their district. District-level early warning

systems should be coordinated with school-level systems to maintain information on individual students and schools over time. In order to do this, these databases must include specific information regarding student identifiers to track students by grade and across schools, enrollment, demographics, achievement, transcript, attendance, behavior and discipline, graduation and dropout (Heppen & Therriault, 2008). Districts have the unique ability to coordinate information from multiple schools, track students before high school, and target students who exhibit early warning signs in middle school or earlier (Heppen & Therriault, 2008).

Accurate data derived from the school's and district's early warning systems can be very important at the state level. States can use the aggregate on-track rates to identify high schools and districts with high proportions of students at risk of dropping out and respond by prioritizing the allocation of resources and supporting the implementation of effective dropout prevention programs and interventions (Heppen & Therriault, 2008). States can provide professional development and create state-level data systems that allow the incorporation of local data and will contribute to consistency in vision, goals, and resources that are monitoring all students enrolled in the state (Heppen & Therriault, 2008). Jerald (2006) points out that the "cost of building an accurate Early Warning System is relatively small compared with the cost of providing programmatic interventions or system-wide reforms meant to increase graduation rates. But the payoff of basing interventions on accurate data can be huge" (p. 3).

Kennelly and Monrad (2007) suggest that schools who are interested in building early warning systems should especially consider tracking ninth grade students who miss ten days or more of school in first 30 days; monitoring ninth grade first quarter, fall semester, and end-of-year grades, paying particular attention to failures in core subjects; and tracking students who failed too many core subjects to be promoted on time to the tenth grade (pp. 1-2). Key academic behavior indicators will enable educators in Tennessee to identify students most likely to drop out and design effective responses and interventions at the school level. In their analysis, researchers suggest schools provide students with two or more of the three key indicators with substantial and sustained interventions and supports (Balfanz et al., 2010b). In regard to students with a single indicator, the researchers suggest a need for moderate interventions or monitoring to keep students on track for graduation (Balfanz et al., 2010b). Although over-age students and those who have transferred two or more times make up only a small percentage of dropouts in Tennessee, researchers suggest they also merit monitoring (Balfanz et al., 2010b).

Dropout Prevention and Intervention Effectiveness

While a variety of factors from multiple sources or environments may initiate the disengagement process for a student, it is in the academic environment where effective interventions can support an at-risk student, instill academic skills and hope, and lead to academic engagement and graduation. Balfanz et al. (2009) maintain that effective interventions combine more personalized education with enhanced academic supports, utilize college and career ready curricula, and implement "wrap-around" supports from families and communities. Adult advocates and mentors for students, parent engagement strategies, individualized graduation plans, and additional supports for struggling students are just a few of the multitude of family and community supports worth considering.

Researchers have found that social and academic risk factors are cumulative, multiple risk factors contribute to and accelerate the risk of dropping out, and prevention strategies are more successful with students who had fewer risks indicating early prevention is more effective (Suh & Suh, 2007; Lee & Burkam, 2003). Other researchers promote identifying and addressing warning signals, including responses to the home or school environment, in the middle grades (Kennelly & Monrad, 2007; Neild et al., 2007). High schools must be organized in order to identify and assist students who send warning signals, have age-appropriate remedial curricula for students to acquire the skills necessary for high

school courses, and have avenues for success available to their students (Neild et al., 2007). It is also important to reengage out-of-school youth and provide multiple pathways for them to earn their diplomas (Neild et al., 2007).

When designing responses to early warning indicators displayed by their students, Tennessee schools need to understand the "scale and scope of the challenge at the school level" (Balfanz et al., 2010b, p. 14). A response system to meet the needs of students in smaller districts will be designed differently and involve different responders than a response system in larger districts. In addition, Suh and Suh (2007) inform us that 4.3% of students who choose to drop out do not display risk factors; therefore, prevention programs should consider and include these students. Educators need to be consistent and persistent when implementing interventions and programs that target students exhibiting early warning indicators (Balfanz et al., 2010b). Researchers also indicate that appropriate interventions to implement for the majority of students will be lower-cost school-wide strategies (Kennelly & Monrad, 2007; Neild et al., 2007). Neild et al. (2007) promote a three-tiered, school-based model for interventions that includes whole-school preventative measures such as a school-wide attendance program, targeted interventions and additional support provided to a student exhibiting warning signs, and intensive interventions like small-group support for students persistently exhibiting disengagement. The next logical step is to track the interventions and actions taken in the longitudinal data system with students who are off track to graduation in order to establish their effectiveness (B. Balfanz, personal communication, October 29, 2010).

According to Kennelly and Monrad (2007), effective dropout prevention programs feature key structural, evaluative, academic, and informational components. Structural components found to be supportive in dropout prevention include a focus on equal access to rigorous coursework and high expectations, integrated methods of community engagement, the establishment of small learning communities and ninth grade academies, and the use of homerooms. Evaluative components found to be supportive include benchmarking, progress monitoring, attendance and behavior monitors, and tiered intervention. Academic supports present in effective dropout prevention programs include engaging catch-up courses, tutoring, and counseling. Effective dropout prevention programs also tend to include informational supports such as eighth-to-ninth grade transition programs and career/college awareness services. It is also important to note that in order to evaluate the impact on just one ninth grade class, a program or intervention needs to be implemented for four to five years (B. Balfanz, personal communication, October 29, 2010).

The Institute of Educational Sciences ([IES], 2008) reviews research on school and community-based dropout prevention curricula and instructional strategies for middle and high schools and presents their findings on the What Works Clearinghouse website. In addition, the National Research Council and Institute of Medicine (2004) consider several comprehensive reform initiatives to be "engaging schools," described as those that promote student confidence in their ability to learn and succeed in school, provide challenging instruction and support to meet high standards, convey high expectations for students' success, provide choices for students, and make curriculum and instruction relevant to the students' experiences, cultures, and goals so that students see value in attending high school. Other researchers (Balfanz et al., 2009; Caldwell & Siwatu, 2003; Cooper & Liou, 2007; Neild, 2009; Balfanz et al., 2004; Kennelly & Monrad, 2007; Tyler & Lofstrom, 2009) have also indicated effective interventions to be considered by educators. Descriptions of instructional strategies, interventions, and other programs found to be effective are presented in Tables 24-26 of Appendix E.

Conclusions and Recommendations

This report has demonstrated how each student's academic experience is driven by a different mix of personal, social, cultural, academic, and behavioral factors. For this reason, our recommendations will follow the bioecological theory approach, placing the student as the focal point within concentric and interconnected spheres of influence, depicted in Figure 8. As noted earlier, bioecological theory has had a widespread influence on the way social scientists approach the study of human beings and their environments. Bronfenbrenner's work of over 60 years has led to new directions in research and the design of programs and policies that impact the well-being of children and families (Bronfenbrenner, 2005).

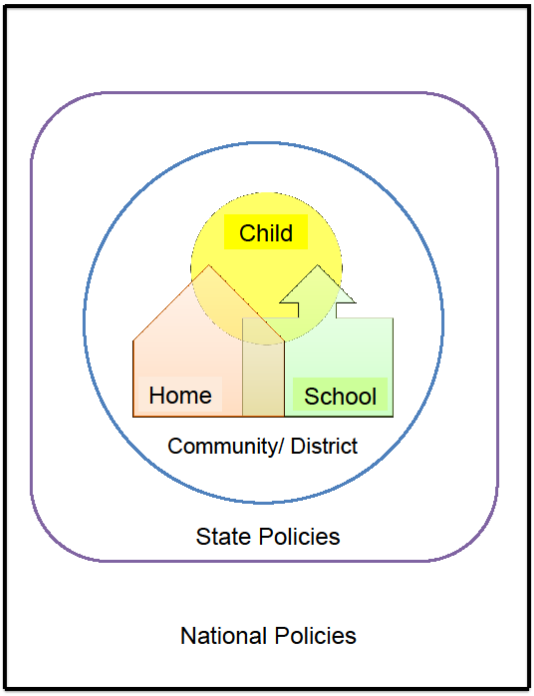

Figure 8. Adaptation of Bronfenbrenner's bioecological systems model for dropout prevention and intervention: Summary

Bioecological theory is an evolving theoretical system for the scientific study of human development over time (Bronfenbrenner, 2005). Bronfenbrenner emphasized the need for policy makers to "acquire knowledge and understanding of how policies, and the ways in which they are implemented, affect the capacity of families, schools, and other socialization settings to function effectively as contexts of human development" (p. xxviii). Therefore, some recommendations may require reflection by policy makers upon education policies and the effects they may have on Tennessee students and their families.

<table>
<tr><th colspan="2">Global level</th></tr>
<tr><td colspan="2">

International conflicts (due to impact on national defense needs, including both material and human resources)
International economic situation (due to impacts on value of American dollar and on international trade)
Global understanding of human social processes and behavior
Vitality of international communication

</td></tr>
<tr><th colspan="2">National level</th></tr>
<tr><td colspan="2">

Economic situation (e.g., job market and unemployment, national deficit, global positioning)
Socio-economic orientation (e.g., individualistic, economic views, political forces, social values)
Legislative stance (e.g., democratic process, rights and responsibilities)
Educational approach (e.g., purpose, reforms)

</td></tr>
<tr><th colspan="2">State level</th></tr>
<tr><td colspan="2">

Regional considerations (e.g., history, geography)
Economic situation (e.g., job market and unemployment, budgetary considerations)
Socio-economic orientation (e.g., social values, dominance of religious beliefs)
Legislative hierarchy and jurisdiction (e.g., control over rule-making and governance)
Compliance with federal initiatives (e.g., ESEA accountability)
Competitive standing for federal grants in education

</td></tr>
<tr><th>Community—Cultural environment</th><th>School district—Local education agency (LEA)</th></tr>
<tr><td>

Regional considerations (e.g., rural versus urban, population)
Economic situation (e.g., job market and unemployment, neighborhood safety)
Ethno-cultural expectations and roles (e.g., income providers, childcare needs, religious beliefs)
Availability of public and social services (e.g., libraries, parks, welfare, outreach)
Transportation system

</td><td>

LEA board policies
Compliance with federal and statewide initiatives
Proportion of Challenge schools and Reward Schools in district

</td></tr>
<tr><th>Home environment</th><th>School environment</th></tr>
<tr><td>

Parents/guardians
Siblings
Other household members
Proximity of relatives

</td><td>

Teacher
Peers
Principal
Other staff members

</td></tr>
<tr><th colspan="2">Student level</th></tr>
<tr><td colspan="2">

Academic history
Psychological factors
Social behaviors

</td></tr>
</table>

Figure 9. Levels of influence on student well-being and academic success

Bronfenbrenner's bioecological theory contends that individual development reflects the influence of interconnected environmental systems over the life course. Examples of how each interconnected system can influence student well-being and academic success are shown in Figure 9.

Humans create the environments that shape human development and actively produce their own environments (Bronfenbrenner, 2005, p. xxvii). The supporting and surrounding environmental layers "limit and shape what can and does occur within the immediate setting" (Bronfenbrenner, 1974, p. 2). Recommendations will thus be made within the nested systems of influence of the home, community, school, district, and state. Actions resulting from these recommendations will bear an impact on the environments that directly affect a child, thus resulting in the potential to create change in the context of the student, family, school, and community.

Home Environment:

The home environment is one of the interconnected systems in which a student spends his or her time and develops relationships. The number and quality of connections between home and school, as well as the people within these environments, have important implications on a child's development. District educators, school administrators, and support personnel have expressed the need to examine the interactions between students, members of the home environment, and school personnel, and how these interactions influence student educational outcomes. The impact of parents' attitudes toward education on student success was found to be especially strong. Attitudes regarding education are shaped in the home, and parents pass on to their children the degree to which they value education and take ownership of the process. Areas in which particular emphasis can be made on the pivotal role of parents on student outcomes include the following:

- Ensuring that students attend school daily.
- Developing dynamic relationships with teachers, principals, and other support staff.
- Encouraging engagement in school through emotional and academic support to students at home.
- Aligning expectations for behavior and discipline that cross home and school environments.

Community Environment:

The community environment is a layer that supports and shapes the immediate settings of both students and their families. Families are nested within the larger network of their local community, which serves as their first point of contact for support and services. Neighborhoods offer the opportunity to family members to build relationships with other members of the community, and through these relationships, norms and values are shaped and sustained. Attitudes regarding education may be shaped in the home; however, the degree to which the community supports these values determines the degree to which students and other family members internalize and respect them. Strategies that can lead to increased student engagement include the following:

- Developing dynamic relationships with families and schools to ensure that opportunities supportive to education are sustained outside of the school day
- Providing personnel and resources to support additional education outside of school.
- Involving more adults who serve in mentoring and academic support roles in the daily lives of students.
- Ensuring that after-school programs are structured and staffed with caring and qualified adults.

- Supporting early career planning and development by offering informational services and placements for internships and employment.
- Aligning expectations for behavior and discipline that promote consistency between the home, school, and community environments.

School Environment:

The school environment is one of the interconnected systems in which students spend a large portion of their time and develop peer and adult relationships. The number and quality of connections between home and school, as well as the people within these environments, have important implications on a child's development. District educators, school administrators, and support personnel have expressed the need to address the structural, social, and academic organization of schools and their responsiveness to student needs. Areas in which school personnel can impact student outcomes include the following:

- Building a sense of community within schools of all sizes that capitalizes on student strengths.
- Developing dynamic and caring relationships among teachers, principals, and other support staff, along with students and their families.
- Providing engaging and appropriately challenging curricula that prepare students for college and career success.
- Promoting early career and educational planning, including personalized curricula and graduation plans.
- Implementing systems of response to student-level warning indicators, including attendance, behavior, and course failure.
- Assisting parents and students in navigating the school system and the network of available supports, particularly at key transition points.
- Encouraging parental involvement in the educational process through ongoing orientation and informational services regarding the pivotal role of parents in student outcomes.
- Offering opportunities for families and community members to support student academics at school, at home, and in the community.

School District Environment:

The school district environment is an outer layer that limits and shapes the immediate settings of the student through its implementation of local education policies. District educators, school administrators, and support personnel have indicated a need to review local educational policy in the following areas:

- Developing and implementing hiring standards that support and sustain schools with highly qualified and caring staff.
- Aligning student academic proficiency assessments with national grade-level curriculum standards.
- Assessing and modifying the appropriateness of graduation and curriculum options for all populations served.

- Coordinating and maintaining a district-wide longitudinal student data system with school-level data and response systems.
- Responding to individual school needs arising from their local environments and student populations.
- Reexamining budgetary allowances for high-quality curricula, teacher resources, support staff, and technology integration.
- Encouraging schools to develop parent and community engagement strategies.
- Reviewing implementation and effectiveness of zero tolerance, suspension, and other behavior policies.
- Reviewing implementation and effectiveness of policies affecting students with disabilities.

State Environment:

The state environment is an outer layer that limits and shapes all of the above inner environments through its institutions, policies, and laws. District educators, school administrators, support personnel, and a scan of state and local policy indicate a need for a state-level review of educational policy and reforms, their impact, and their effectiveness regarding Tennessee students and families.

- Coordinating and maintaining a statewide longitudinal data system that tracks students and the effectiveness of programs directed at dropout prevention. An Early Warning System can supplement Tennessee's longitudinal student data system with the key indicators that educators needed to identify students who are at risk of dropping out of school.
- Developing a forum for educators to communicate success strategies, ideas, and programs in order to expand their professional learning community.
- Aligning state-wide definitions and reporting of dropout, graduation, and transfer with national standards.
- Conducting a systematic and in-depth study of those high schools in Tennessee that have high promoting power to provide a source for best practices for schools with conditions unique to Tennessee.
- Promoting ownership and a sense of responsibility for student attendance and success in all stakeholders.
- Reexamining school funding formulas and considering how to incorporate measures that emphasize daily attendance.

Next Steps

While the work of educators and leaders at the school and district levels most directly affects children and their families on a day-to-day basis, their efforts are guided and supported by leadership at the state level. State leaders can encourage or limit the direction of local efforts in building student success through thoughtfully formulated policy. Local educators and leaders need to have their roles defined, supported, and integrated within a common overarching mission of the state. In turn, the statewide mission needs to recognize and support the unique conditions within individual schools and districts in which successful practices are developed. The state can support the advancement and communication of local innovation, programming and best practice through the development of an expanded professional learning community that links school educators and leaders across all 136 districts in Tennessee. Through the sharing of local best practices within a framework for linking the longitudinal effectiveness of these local efforts with local educational conditions and student-level indicators of progress, Tennessee's educators, families, and leaders can transcend obstacles to school success together.

As previously stated, when designing responses to early warning indicators displayed by their students, Tennessee schools need to understand the "scale and scope of the challenge at the school level" (Balfanz et al., 2010b, p. 14). A response system to meet the needs of students in smaller districts will be designed differently and involve different responders than a response system in larger districts. Educators need to be consistent and persistent when implementing interventions and programs that target students exhibiting early warning indicators (Balfanz et al., 2010b). Neild et al. (2007) promote a three-tiered, school-based model for interventions that includes whole-school preventative measures, such as a school-wide attendance program, targeted interventions and additional support provided to a student exhibiting warning signs, and intensive interventions like small-group support for students persistently exhibiting disengagement. The next logical step is to track the interventions and actions taken in the longitudinal data system with students who are off track to graduation in order to establish their effectiveness (B. Balfanz, personal communication, October 29, 2010).

Because educators will maintain this information in the longitudinal data system, a further practicable step would be to provide them with a linked online forum for extending their professional learning community and learning best practices in intervention from each other. Within this forum, teachers, school administrators, and support personnel could participate in online discussions of the various issues and challenges that they encounter, particularly with students at risk of dropping out of school. Different modules could address specific issues, the interventions used to resolve these issues, the implementation methodologies and any special adjustments to them, the populations of at-risk subcategories served, and the effectiveness of the interventions, with supporting evidence. In addition, the longitudinal data system could include district-level and school-level asset maps, in which school administrators and leaders could communicate and track the resources available to them, particularly as they pertain to dropout prevention and intervention at their sites.

Further modules in the online educators' forum could address specific state and local policies that are perceived to be effective or hinder progress. These modules would provide a venue for providing clarification and guidance to school system personnel at all levels and for ensuring consistency in communication to all stakeholders. Responses from Tennessee educators, school administrators, and support personnel suggest that a review of policies in the following areas may be especially beneficial:

- Truancy policies, with emphasis on student and parent accountability.
- Credit recovery and related programs, particularly concerning the need for quality control measures.

- Grade promotion and retention policies, with measures to prevent social promotion without true content mastery.
- Teacher evaluations that over-emphasize student proficiency test scores (e.g., TCAP), which result in teachers "teaching to the test," rather than teaching for content mastery, critical thinking skill development, and lifelong love of learning.
- Suspensions, which ultimately reduce time in class, potentially contributing to the downward spiral of absenteeism, course failure, and negative behavior incidents due to frustration and embarrassment.
- Alternative school placements for students with extreme behavioral patterns, which isolate these students from the quality engaging learning experiences that would promote their success.

In total, the longitudinal data system and extended online professional learning community would support ongoing evaluation and continual monitoring of the successfulness of interventions and other actions taken to address dropout and other challenges that schools face. While different barriers exist for individual districts and schools, overall, results from the Dropout Prevention Survey administered across Tennessee indicate that nine barriers have the highest negative impact on student success and graduation rates. These nine barriers are summarized below.

- 89.7% rated truancy as a high barrier; an additional 6.5% rated the impact as moderate.
- 88.7% indicated that little or lack of parent monitoring has a high negative impact on student success in school and likelihood of graduating; an additional 8.1% rated the impact as moderate.
- 88.3% rated absenteeism as a high barrier; an additional 7.8% rated the impact as moderate.
- 86.2% indicated that little or lack of parent academic involvement has a high negative impact on student success and graduation; an additional 10.3% rated the impact as moderate.
- 86.9% rated motivation as a high barrier; an additional 9.3% rated the impact as moderate.
- 82.6% rated homelessness as a high barrier; an additional 11.0% rated the impact as moderate.
- 80.6% indicated that little or low school responsiveness to student behavior and discipline issues is a high barrier; an additional 12.1% rated the impact as moderate.
- 77.7% indicated that low educational and occupational aspirations have a high negative impact on student success and graduation; an additional 16.2% rated the impact as moderate.
- 59.5% indicated that need for remediation (i.e., to address academic areas where less proficient) is a high barrier; an additional 25.8% rated the impact as moderate.

Table 10 offers strategies that are currently being implemented with reported success in Tennessee schools to address these barriers. The strategies are listed along with the primary issues or barriers that they address and the potential level of difficulty that any given school may expect in implementing them.

Table 10. Strategies for the highest ranked issues with potential levels of implementation difficulty

Issues	Potential Strategies	Examples	Estimated **Level of Difficulty**
Truancy	"Butter Cookie Theory" involved neighborhood men in monitoring student attendance at Vance Middle.	"Butter Cookie Theory" (L. Pointer, personal communication, November 3, 2010)	Low to Moderate
	"Neighborhood Walk" to build relationships with families at Vance Middle. Once in the morning to get students to school and once in the afternoon to stop fighting between students.	"Neighborhood Walk" (L. Pointer, personal communication, November 3, 2010)	Low to Moderate
Students enter middle school and high school with low mastery of prerequisite skills Absenteeism	Build into the longitudinal data system measures for identifying students in need of remediation at any level at the beginning of the school year or course and for determining the efficacy of interventions.	Track effectiveness of interventions (B. Balfanz, personal communication, October 29, 2010) Quarterly "close monitoring" (L. Ailshe, personal communication, October 29, 2010) Knowledge Is Power Program (KIPP.org)	Low to Moderate
	Bolster academic tutoring programs before, during, and after school.	After-school program with transportation provided (L. Ailshe, personal communication, October 29, 2010) University of Tennessee Health Science Center partners with Memphis City Schools to provide "Our Children Our Future Tutoring Program" in math and reading (http://www.uthsc.edu/hrtraining/ocof.php)	Low to Moderate
Low motivation Low educational and occupational aspirations	Emphasize study skills, goal setting, and self-monitoring school-wide. Early access to high-stakes information for urban and at-risk students	Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP TN, 2010)	Low to Moderate
Behavior/discipline issues	Partner with mental health service providers to deliver professional development on emotional and behavioral issues.	Christian Psychological Center in Memphis, TN (http://www.cpcmemphis.net/) offers workshops for educators	Low to Moderate
	"Apply classroom learning through investigation of a community problem, planning ways to solve it, action through service, reflection on the experience and what was learned, and demonstration of results" (Bridgeland, Dilulio, & Wulsin, 2008, p. 1).	Service-Learning (Bridgeland, Dilulio, & Morison, 2006; Bridgeland et al., 2008)	Moderate to High

Table 10. Strategies for the highest ranked issues with potential levels of implementation difficulty

Issues	Potential Strategies	Examples	Estimated **Level of Difficulty**
Low parent involvement	Community-centric strategies to enhance parent involvement (Van Velsor & Orozco, 2007): 1. Learn about the students' families 2. Learn about the students' community 3. Help parents address concerns in the community 4. Provide on-site services for parents ○ Activities that support student goals ○ Opportunities to get to know each other ○ Opportunities to get to know the school ○ Address topics of interest to parents 5. Offer in-service professional development for school personnel 6. Utilize parents' cultural capital ○ Shift from deficit thinking to family strengths ○ Recognize family expertise and contributions to student academic success	Examples of community-centric strategies (Van Velsor & Orozco, 2007): 1. Home visits and/or a call or note to the parent offering positive feedback 2. Identify community activists, spiritual leaders, local youth organization workers, and other leaders 3. Mobile health unit providing weekly medical services 4. School resource and/or drop-in center 5. A training topic might be the differences between the culture of middle-class school personnel and that of low-income families 6. Respect what parents can contribute to the educational process	Moderate to High
Low parent monitoring	Educate and train parents in parenting techniques and monitoring strategies.	Exchange Club Family Center, in Memphis, TN (http://www.exchangeclub.net/) offers parent education courses	Moderate to High
Low motivation Low educational or occupational aspirations Absenteeism Homelessness	Establish long-term educational goals and plans based on career aspirations.	Oasis Center (A. Williams, personal communication, October 29, 2010)	Moderate to High

Guidelines for Tennessee Graduation Success

In order to meet or exceed 90% graduation in every school and ensure graduates' competitive readiness for college, careers, and citizenship, it is recommended that Tennessee make the following considerations. References to supporting sections of the report and other sources are provided in Appendix F.

1. Use Data to Inform Teaching and Decision Making.

Longitudinal, statewide system tracking student-level progress in credits toward graduation, grade-level content and skills mastery, academic and behavioral interventions and outcomes, and indicators of at-risk students, including truancy, problematic behavior, course failures, students who are over-age for grade, and transfers.

- Streamline scoring procedures and timeline for high-stakes achievement and proficiency examinations to ensure prompt availability of data.

2. Promote Attendance Accountability.

- Follow up, document, and inform parents of every tardy and absence within a half school-day. Obtain and document reasons for tardies and absences. Implement effective plans to make up days missed.

3. Develop Early Career Planning and Goal Setting.

- Cultivate career exposure and career-oriented academic planning as early as elementary school.
- Offer multiple graduation paths and diploma options for all students, both college-bound and career-bound, in special education and in general education. Allow for flexible high school completion timelines in graduation plans for students with extenuating circumstances.
- Have schools review 4-year graduation plans annually to ensure on-time graduation.

4. Provide Engaging, Relevant, and Appropriate K-12 Curriculum.

- Emphasize conceptual understanding, study skills, self-regulation, student-centered learning, and real-world relevance. Maximize instructional time and quality, and retain focus on critical thinking skills when preparing for examinations.

5. Ensure Grade-Level Content and Skills Mastery.

- Require K-12 promotion of students to be contingent upon mastery of grade-level proficiency standards and *not* on school calendars or social promotion.
- Continue and increase frequency of performance-based measurement, formative assessment of learning progress, and progress monitoring.
- Administer End-Of-Course (EOC) assessments online and on-demand.
- Return assessment results to schools in a timeframe that informs instruction and allows for mid-year graduation.

6. Monitor (via the Early Warning Data System) and Provide Appropriate Interventions for Students Exhibiting At-Risk Indicators.

- Proactively monitor students with 1-5, 5-10, and 10 or more absences in a school year. Follow similar procedures when a student is off track for course success, is suspended or expelled, or exhibits any other problematic behavior. When appropriate, schools should provide interventions based upon that student's specific needs and circumstances.

7. Expand Professional Development and Professional Learning Communities.

- Continue to offer training and support to educators regarding the use of data at the student level to inform instruction.
- Empower teachers with professional development related to effective instruction and interaction with all students, including those with barriers to learning.
- Support administrators, educators, and support personnel as they help each other through an extended, online professional learning community and communication portal.

8. Expand Parent Education, Involvement, and Outreach.

- As they align with all graduation success guidelines, promote best practices in parent involvement. Educate, train, connect, and expand outreach to parents regarding their role in their child's education, interpreting progress reports, and supporting education at home.

9. Nurture Team-Oriented Relationships.

- Optimal student-teacher ratios allow teachers time to plan, teach, and engage with each student individually.
- Cultivate school-home and school-community partnerships, as well as communication networks.
- Improve understandability and thoroughness of all school communications, especially handbooks, sent to families.

10. Offer Rigorous Career, Technical, and Vocational Programs.

- Cultivate partnerships with community businesses and other organizations to develop incentivizing apprenticeship, internship, and post-graduation job placement programs.
- Incorporate rigorous academic coursework applicable to specific career pathways.

11. Implement Standards of Quality and Accountability for Out-of-class Time.

- After-school and before-school remediation and enrichment programs are structured, academically rigorous, and directly linked to regular school-day content and skills. Student participation should be of sufficient intensity and duration to have an impact on student improvement, both academically and behaviorally.
- Ensure that districts offer high-quality, meaningful alternatives to suspension and expulsion via alternative schools or programs that are built upon best practices and staffed with educators trained to handle the specific academic and behavioral needs of the learners for which they were designed.
- All programs should be evaluated regularly and held accountable for maintaining high standards of quality. Current out-of-school time best practices should be identified. Technical assistance and training on implementing these methods should be offered.

12. Cultivate Nontraditional Schools (Schools Providing Dropout Intervention and Recovery Services).

- Allow extended time for students to graduate without penalty.
- Investigate alternative ways to hold nontraditional schools accountable under AYP while still allowing them the flexibility to work with high-need learners.
- Allow for competency-based learning in lieu of compulsory attendance for students 16-17 years old who are attending a nontraditional school.

References

Achieve, Inc. (2010). About Achieve. Retrieved from http://www.achieve.org/AboutAchieve

Alliance for Excellent Education. (2010). High schools in the United States: How does your local high school measure up? Retrieved from http://www.all4ed.org/about_the_crisis/schools/state_and_local_info/promotingpower

Alexander, K. L., Entwisle, D. R., & Kabbani, N. S. (2001). The dropout process in life course perspective: Early risk factors at home and school. *Teachers College Record. 103*(5), 760-822.

Aud, S., Hussar, W., Planty, M., Snyder, T., Bianco, K., Fox, M., Frohlich, L., Kemp, J., & Drake, L. (2010). *The Condition of Education 2010* (NCES 2010-028). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC. Retrieved from http://nces.ed.gov/programs/coe/2010/section3/indicator18.asp

Balfanz, R. (2009). Can the American high school become an avenue of advancement for all? *The Future of Children, 19*(1), 17-36.

Balfanz, R., Bridgeland, J. M., Moore, L. A., & Fox, J. H. (2010a). *Building a grad nation: Progress and challenge in ending the high school dropout epidemic.* Retrieved from http://www.americaspromise.org/Our-Work/Grad-Nation/~/media/Files/Our%20Work/Grad%20Nation/Building%20a%20Grad%20Nation/Building%20a%20Grad%20Nation_FullReport_FINAL%2011-30-10.ashx

Balfanz, R., Fox, J. H., Bridgeland, J. M., & McNaught, M. (2009). *Grad nation: A guidebook to help communities tackle the dropout crisis.* Retrieved from http://www.americaspromise.org/Our-Work/DropoutPrevention/~/media/Files/Our%20Work/Dropout%20Prevention/Grad%20Nation%20Guidebook%20052809.ashx

Balfanz R., & Letgers, N. (2004). *Locating the dropout crisis: Which high schools produce the nation's dropouts? Where are they located? Who attends them?* Baltimore: Johns Hopkins University.

Balfanz, R., Letgers, N., & Jordan, W. (2004). Catching up: Effect of the Talent Development ninth grade instructional interventions in reading and mathematics in high-poverty high schools. *NASSP Bulletin*, 88, 3-30.

Balfanz, R., Wang, A., & Byrnes, V. (2010b). *Early warning indicator analysis: Tennessee.* Baltimore: John Hopkins University.

Bogg, T. & Finn, P.R. (2009). An ecologically based model of alcohol-consumption decision making: Evidence for the discriminative and predictive role of contextual reward and punishment information. *Journal of Studies on Alcohol and Drugs*, *70*(3), 446-457.

Bridgeland, J.M., DiIulio, JJ., & Morison, K.B. (2006). *The silent epidemic: Perspectives of high school dropouts.* Retrieved from http://www.civicenterprises.net/pdfs/thesilentepidemic3-06.pdf

Bridgeland, J.M., DiIulio, J.J., & Wulsin, S.C. (2008). *Engaged for success: Service-Learning as a tool for high school dropout prevention*. Retrieved from http://www.civicenterprises.net/pdfs/service-learning.pdf

Bronfenbrenner, U. (1974). Developmental research, public policy, and the ecology of childhood. *Child Development, 45*(1), 1-5.

Bronfenbrenner, U. (Ed.). (2005). *Making human beings human: Bioecological perspectives on human development.* Thousand Oaks, CA: Sage Publications.

Caldwell, L. D., & Siwatu, K. O. (2003). Promoting academic persistence in African American and Latino high school students: The educational navigation skills seminar. *The High School Journal, 87*(1), 30-38.

Cataldi, E. F., Laird, J., and Kewal-Ramani, A. (2009). *High School Dropout and Completion Rates in the United States: 2007 (NCES 2009-064).* Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009064

Ceci, S.J. & Konstantolpoulos, S. (2009). It's not all about class size. *Chronicle of Higher Education*, *55*(21), A30. Retrieved from http://chronicle.com/article/It-s-Not-All-About-Class-Size/28985

Chapman, C., Laird, J., and Kewal-Ramani, A. (2010). *Trends in High School Dropout and Completion Rates in the United States: 1972–2008* (NCES 2011-012). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. Retrieved December 15, 2010 from http://nces.ed.gov/pubs2011/2011012.pdf

Claiborne County Board of Education. (2010). *Claiborne County Schools Online Policy Manual*. Retrieved November 3, 2010 from http://www.tsba.net/production/type.asp?iType=6&iBoard=67

Clay County Board of Education. (2010). *Clay County Schools Online Policy Manual*. Retrieved November 3, 2010 from http://www.tsba.net/production/type.asp?iType=6&iBoard=61

The College Board. (2010). Choose AP. Retrieved from http://www.collegeboard.com/student/testing/ap/about.html

Cooper, R., & Liou, D. D. (2007). The structure and culture of information pathways: Rethinking opportunity to learn in urban high schools during the ninth grade transition. *The High School Journal, 91*(1), 43-56.

Cosden, M., Morrison, G., & Gutierrez, L. (2004). The effects of homework programs and after-school activities on school success. *Theory Into Practice, 43*(3), 220-226.

Darling-Hammond, L., Ross, P., & Milliken, M., (2007). High school size, organization, and content: What matters for student success? *Brookings Papers on Educational Policy 2006/2007,* 163-203.

Disla, L. C. (2004). As strong as the weakest link: Urban high school dropout. *The High School Journal, 87*(2), 16-24.

Greene County Board of Education. (2010). *Greenville High School Handbook 2010-2011*. Retrieved November 3, 2010 from http://ghs.gcschools.net/?PageName='Handbook'

Griffin, B.W. (2002). Academic disidentification, race, and high school dropouts. *The High School Journal, 85*(4), 71-81.

Gwynne, J., Lesnick, J., Hart, H. M., & Allensworth, E. M. (2009). *What matters for staying on-track and graduating in Chicago public schools: A focus on students with disabilities.* Chicago: Consortium on Chicago School Research.

Heppen, J. B., & Therriault, S. B. (2008). *Developing early warning systems to identify potential high school dropouts.* Washington, DC: National High School Center.

Institute of Education Sciences. (2008). *What Works Clearinghouse intervention reports.* Retrieved on September 22, 2010 from http://ies.ed.gov/ncee/wwc/reports/

Jacob, B., & Lefgren, L. (2007). *The effect of grade retention on high school completio*n. Cambridge, MA: National Bureau of Economic Research. Retrieved from http://ww.nber.org/papers/213514

Jackson, K.F. (2007). *Federal requirements: Graduation/dropout rates*. [PowerPoint slides]. Retrieved from http://www.tennessee.gov/education/schapproval/doc/Federal_Requirements.pdf

Jerald, C. D. (2006). *Identifying potential dropouts: Key lessons for building an early warning data system.* New York: Achieve, Inc. Retrieved from http://www.achieve.org/dropouts

Johnson County Board of Education (2010). *Johnson County Schools Online Policy Manual*. Retrieved November 3, 2010 from http://www.tsba.net/production/detail.asp?iFile=5973&iType =6&iBoard=17

Jordan, A.B. (2005). Learning to use books and television: An exploratory study in the ecological perspective. *American Behavioral Scientist*, *48*(5), 523-538.

Kennelly, L., & Monrad, M. (2007). *Approaches to dropout prevention: Heeding early warning signs with appropriate interventions.* Washington, DC: National High School Center, American Institutes for Research.

Knesting, K. (2008). Students at risk for school dropout: Supporting their persistence. *Preventing School Failure, 52*(4), 3-10.

Knox County Board of Education. (2010). *Powell High School Student Handbook 2010-2011.* Retrieved November 3, 2010, from http://powellhs.knoxschools.org/modules/cms/pages.phtml?pageid= 50301&sessionid=a1642394b2418a047651674bf5581b07&sessionid=a1642394b2418a0476516 74bf5581b07

Lagana-Riordan, C., & Aguilar, J., (2009). What's missing from No Child Left Behind? A policy analysis from a Social Work perspective. *Children and Schools, 31*(3)*,* 135-144.

Lee, V. L., & Burkam, D. T. (2003). Dropping out of high school: The role of school organization and structure. *American Educational Research Journal, 40*(2), 353-393.

Lehr, C. A., Johnson, D. R., Bremer, C. D., Cosio, A., & Thompson, M. (2004). *Essential tools increasing rates of school completion: Moving from policy and research to practice.* Minneapolis, MN: National Center on Secondary Education and Transition, Institute on Community Integration.

Lessard, A., Fortin, L., Marcotte, D., Potvin, P., & Royer, E. (2009). Why did they not drop out? Narratives from resilient students. *The Prevention Researcher 16*(3), 21-24.

Lopez, S. J. (2009). *Gallup student poll national report*. Retrieved from http://www.americaspromise.org/ Our-Work/~/media/Files/Our%20Work/ Gallup%20Student%20Poll/

Mammen, S., Baur, J.R., & Richards, L. (2009). Understanding persistent food insecurity: A paradox of place and circumstance. *Social Indicators Research*, *92*(1), 151-168.

Marion County Board of Education. (2010). *Richard Hardy Memorial School Student Handbook 2010-2011.* Retrieved November 3, 2010 from http://richardhardy.org/index.php?option=com_ content&task=view&id=11&Itemid=23

McMinn County Board of Education. (2010). *McMinn County Schools Online Policy Manual*. Retrieved November 3, 2010 from http://www.tsba.net/production/type.asp?iType=6&iBoard=25

Meade, C.S. & Ickovics, J.R. (2005). Systematic review of sexual risk among pregnant and mothering teens in the USA: pregnancy as an opportunity for integrated prevention of STD and repeat pregnancy.(sexually transmitted disease). *Social Science & Medicine*, 60(4), 661-678.

National Center for Education Statistics. (2009a). *The nation's report card: Mathematics 2009 state snapshot report – Tennessee grade 8 public schools.* Retrieved from http://nces.ed.gov/ nationsreportcard/pdf/stt2009/2010454TN8.pdf

National Center for Education Statistics. (2009b). *The nation's report card: Reading 2009 state snapshot report – Tennessee grade 8 public schools.* Retrieved from http://nces.ed.gov/nationsreportcard/ pdf/stt2009/2010460TN8.pdf

National Center for Education Statistics. (2009c). *Digest of educational statistics: 2009.* Retrieved from http://nces.ed.gov/programs/digest/d09/

National Center for Education Statistics. (2010a). *The nation's report card.* Retrieved from http://nces.ed.gov/nationsreportcard/about/

National Center for Education Statistics. (2010b). *Public high school graduation rates by state*. Retrieved from http://nces.ed.gov/programs/coe/2010/section3/table-scr-1.asp

National Governors Association Center for Best Practices (NGA Center) and Council of Chief State School Officers (CCSSO). (2010a). *In the states*. Retrieved from http://www.corestandards.org/in-the-states

National Governors Association Center for Best Practices (NGA Center) and Council of Chief State School Officers (CCSSO). (2010b). *The standards*. Retrieved from http://www.corestandards.org/the-standards

National High School Center. (2007). *Dropout prevention for students with disabilities: A critical issue for state education agencies.* Retrieved from http://www.betterhighschools.org/docs/NHSC_DropoutPrevention_052507.pdf

National Research Council and the Institute of Medicine. (2004). *Engaging schools: Fostering high school students' motivation to learn.* Washington, DC: The National Academies Press.

Neild, R. C. (2009). Falling off track during the transition to high school: What we know and what can be done. *The Future of Children, 19*(1), 53-76.

Neild, R. C., Balfanz, R., & Herzog, L. (2007). An early warning system. *Educational Leadership, 65*(2), 28-33.

Patterson, J. A., Hale, D., & Stessman, M. (2007). Cultural contradictions and school leaving: A case study of an urban high school. *The High School Journal, 91*(2), 1-15.

Roderick, M. (1994). Grade retention and school dropout: Investigating the association. *American Educational Research Journal, 31*(4), 729-759.

Roderick, M., & Camburn, E. (1999). Risk and recovery from course failure in the early years of high school. *American Educational Research Journal, 36(*2), 303-343.

Rumberger, R. W. (1983). Dropping out of high school: The influence of race, sex, and family background. *American Educational Research Journal, 20*(2), 199-220.

Rumberger, R. W. (1987). High school dropouts: A review of issues and evidence. *Review of Educational Research, 57*(2), 101-121.

Schweiger, W.K. & O'Brien, M. (2005). Special needs adoption: An ecological systems approach. *Family Relations*, *54*(4), 512-522.

Seastrom, M., Hoffman, L., Chapman, C., & Stillwell, R. (2007) The Average Freshman Graduation Rates for Public High Schools From the Common Core of Data: School Years 2002-2003 and 2003-2004 (NCES 2006-606rev). U.S. Department of Education, National Center for Educational Statistics. Washington, DC. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006606rev

Somers, C. L., Owens, D., & Piliawsky, M. (2008). Individual and social factors related to urban African American adolescents' school performance. *The High School Journal, 91*(3), 1-11.

Southern Regional Education Board (SREB). (2010a). High Schools That Work. Retrieved from http://www.sreb.org/page/1078/high_schools_that_work.html

SREB. (2010b). Key practices. Retrieved from http://www.sreb.org/page/1139/key_practices.html

Stern, D. (2009). Expanding policy options for educating teenagers. *The Future of Children, 19*(1), 211-239.

Stillwell, R. (2010). *Public School Graduates and Dropouts*. From the Common Core of Data: School Year 2007-2008 (NCES 2010-341). National Center for Education Statistics Institute of Education Sciences, U.S. Department of Education. Washington, DC. Retrieved from http://nces.ed.gov/pubs2010/2010341.pdf

Suh, S., & Suh, J. (2007). Risk factors and levels of risk for high school dropouts. *Professional School Counseling, 10*(3), 297-306.

Swanson, C. B. (2009). *Cities in crisis 2009: Closing the graduation gap*. Retrieved from http://www.americaspromise.org/Resources/Research-and-Reports/c/Cities-In-Crisis-2009.aspx

Tennessee Code. (2010). *Title 49: Education.* Retrieved from www.michie.com/tennessee

Tennessee Department of Education [TDOE]. (2005). *GEAR UP Tennessee: Gaining Early Awareness and Readiness for Undergraduate Programs*. Retrieved from http://www.tn.gov/thec/Divisions/GEARUP/ GEARUP/GearUpBro.pdf

TDOE. (2009). *Tennessee Department of Education Report Card 2009.* Retrieved from http://edu.reportcard.state.tn.us/pls/apex/f?p= 200:50:2019100996498075::NO

TDOE. (2010b). *No Child Left Behind.* Retrieved from http://www.tennessee.gov/education/nclb/

TDOE. (2010c, January). *Tennessee embarks on Race to the Top: Newsletter of the Tennessee Diploma Project*. Retrieved from http://tn.gov/education/TDP/index.shtml

TDOE. (2010d). *Tennessee Diploma Project: Aligned Expectations* [PowerPoint slides]. Retrieved from http://www.state.tn.us/sbe/TDP%201-23-08.pdf

TDOE. (2010e). *Tennessee First to the Top Workshop July 2010* [PowerPoint slides]. Retrieved from http://www.tn.gov/firsttothetop/docs/ TN%20First%20to%20the%20Top%20Workshop%20-%20Final%20July%207.pdf

TDOE. (2010f). U.S. Department of Education approves Tennessee Race to the Top budget [Press release]. Retrieved from http://news.tennesseeanytime.org/node/5641

Tsoi-A-Fatt, R. (2010, March). *Reauthorizing ESEA: Considerations for dropout prevention and recovery. Newsletter of CLASP*. Retrieved from http://www.clasp.org/admin/site/publications/files/ESEA-Recommendations2010.pdf

Tyler, J. H., & Lofstrom, M. (2009), Finishing high school: Alternative pathways and dropout recovery. *The Future of Children, 19*(1), 77-103.

U.S. Department of Education [USDOE], Office of Communications and Outreach. (2009a). *Race to the Top Program: Executive Summary*. Retrieved from http://www2.ed.gov/programs/racetothetop/executive-summary.pdf

USDOE, Office of Communications and Outreach. (2009b). *Race to the Top Program: Factsheet*. Retrieved from http://www2.ed.gov/programs/racetothetop/factsheet.pdf

USDOE. (2009c). *Robust data gives us the roadmap to reform: Address by the Secretary of Education to the Fourth Annual Institute of Education Sciences Research Conference* [Speech transcript]. Retrieved from http://www.ed.gov/news/speeches/robust-data-gives-us-roadmap-reform

USDOE. (2009d). *States will lead the way to reform: Address by the Secretary of Education at the 2009 Governors Education Symposium* [Speech transcript]. Retrieved from http://www2.ed.gov/news/speeches/2009/06/06142009.html?exp=8

USDOE, Office of Communications and Outreach. (2010a). *Blueprint for Reform: The reauthorization of the Elementary and Secondary Education Act.* Retrieved from http://www2.ed.gov/policy/elsec/leg/blueprint/blueprint.pdf

USDOE, Office of Communications and Outreach. (2010b). B*uilt for Teachers: How the Blueprint for Reform Empowers Educators.* Retrieved from http://www2.ed.gov/policy/elsec/leg/blueprint/teachers/publication.pdf

USDOE. (2010c). *Delaware and Tennessee win first Race to the Top grants* [Press release]. Retrieved from http://www2.ed.gov/news/pressreleases/2010/03/03292010.html

Vermont Code. (2009). *Title 16: Education.* Retrieved from http://law.justia.com/vermont/codes/2009/

Waxman, H. C, Gray, J. P, & Padron, Y. N. (2003). Review of research on educational resilience. Center for Research on Education, Diversity and Excellence, UC Berkeley. Retrieved from: http://escholarship.org/uc/item/7x695885

Van Velsor, P. & Orozco, G.L. (2007). Community-centric strategies to enhance parent involvement. *Professional School Counseling*, *11*(1), 17-24. Retrieved from http://www.thefreelibrary.com

Williamson County Board of Education. (2010a). *Ravenwood High School Student Handbook 2010-2011*. Retrieved November 3, 2010 from http://www.wcs.edu/rhs/students/docs/planner.pdf

Williamson County Board of Education. (2010b). *Williamson County Schools Online Policy Manual.* Retrieved November 3, 2010 from http://www.wcs.edu/boardpolicy/homepage.htm#six

Zeleny, J. (2010, March 1) Obama takes aim at school dropout rates [Electronic version]. *New York Times*. Retrieved from http://thecaucus.blogs.nytimes.com/2010/03/01/obama-takes-aim-at-school-dropout-rates/

About CREP

The work reported here was conducted by the Center for Research in Educational Policy (CREP), a State of Tennessee Center of Excellence, located at the University of Memphis. The Center's mission is to implement a research agenda associated with educational policies and practices in preK-12 public schools and to provide a knowledge base for use by educational practitioners and policymakers. Since 1989, the Center has served as a mechanism for mobilizing community and university resources to address educational problems and to meet the University's commitment to primary and secondary schools. Functioning as a part of the College of Education, the Center seeks to accomplish its mission through a series of investigations conducted by Center personnel, college and university faculty, and graduate students.